CITY OF LONG BEACH

Cherry Avenue Industrial Building Project

Final Environmental Impact Report

Lead Agency:

City of Long Beach
Long Beach Community Development Department, Planning Bureau
411 West Ocean Boulevard, 3rd Floor
Long Beach, California 90802
Contact: Ms. Amy L. Harbin, AICP

Prepared with the assistance of

Kimley»Horn

Kimley-Horn and Associates, Inc.
660 S Figueroa St #2050
Los Angeles, CA 90017

June 7, 2024

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1. Introduction

1.1 Purpose of the Final EIR

The City of Long Beach (City), as the Lead Agency under the California Environmental Quality Act (CEQA), has prepared this final Environmental Impact Report (Final EIR) for the proposed 5910 Cherry Avenue Project (Project). This document, in conjunction with the Draft Environmental Impact Report (Draft EIR), comprise the Final EIR.

As described in Sections 15088, 15089, 15090 and 15132 of the CEQA Guidelines, the Lead Agency must evaluate comments received on the Draft EIR and prepare written responses and consider the information contained in a Final EIR before approving a project. Pursuant to CEQA Guidelines Section 15132, a Final EIR consists of: a) the Draft EIR; b) comments and recommendations received on the Draft EIR either verbatim or in summary; c) a list of persons, organizations, and public agencies commenting on the Draft EIR; d) responses of the Lead Agency to significant environmental points raised in the review and consultation process; and e) any other information added by the Lead Agency.

1.2 Project Summary

As described in Chapter 2, Project Description, of the Draft EIR, the proposed Project will include demolition of an existing industrial development and office facility located on a 14.16-acre site at 5910 Cherry Avenue in the City. The facility is currently underutilized, with only portions of the Project site occupied by active tenants. The proposed Project site is currently developed with eight single-story buildings, ranging from 2,400 to 33,100 SF, on the northern and western portions of the Project site. The buildings were used for a variety of uses, although mainly for petroleum storage purposes and a maintenance yard for the neighboring tank farm. The proposed Project would involve the construction of a new 304,344 square feet (SF) tilt-up industrial warehouse facility with associated parking and landscaping.

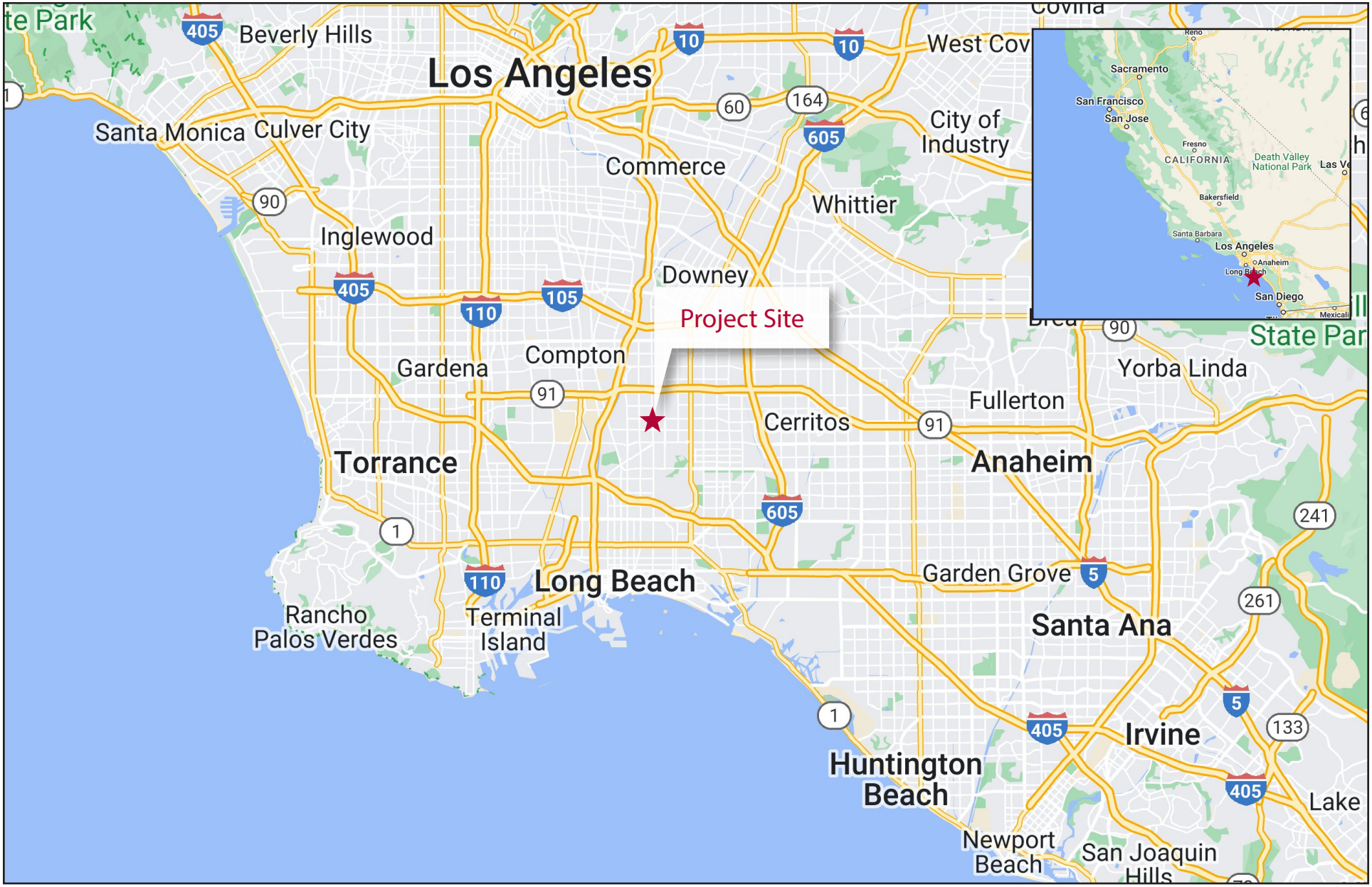
The proposed Project site is in the northern half of the City located at 5910 Cherry Avenue, approximately 650 feet north of the intersection of Cherry Avenue and South Street. The City lies within southeast Los Angeles County and is approximately 20 miles south of downtown Los Angeles. **Figure 1-1, Regional and Site Location map** depicts the proposed Project site in a regional context. The Project site is bounded by Cherry Avenue to the west and Union Pacific rail lines to the east. The southern boundary of the Project site is parallel to East 59th Street and the northern boundary is located halfway between East 60th Street and East Hungerford Street. Existing industrial development is located to the north and east of the Project site, which include approximately 30 petroleum storage tanks of various sizes. Commercial development is located to the south and west of the Project site with areas of residential development located just beyond the commercial development to the west. **Figure 1-2, Aerial Photograph of the Project Site and Vicinity**, depicts the proposed Project site in a local setting. State Route 91 (SR 91) (located approximately 0.85 miles north of the site) and Interstate 710 (I-710) (located approximately 1.75 miles west of the Project site) provide regional access.

The proposed Project is depicted on **Figure 1-3, Conceptual Site Plan**. The proposed Project would redevelop the Project site with a single, approximately 304,344 SF, concrete, tilt-up light-industrial warehouse building. The proposed building would be 51 feet high and surrounded by parking areas that would include 338 at-grade parking stalls and 79 truck parking stalls. Passenger vehicle parking would be situated in front of the proposed building, along Cherry Avenue, along the south side of the lot, and in the rear of the building in the northeast corner of the lot. The building would feature 44-truck high-dock doors along the south elevation facing the abutting commercial site. Approximately 10,066 SF of office space would be accommodated in the southwest corner of the building along Cherry Avenue. The Project site is currently zoned (IG) General Industrial. As part of the proposed Project, the Project site will be rezoned to (IL) Light Industrial).

1.3 Project Objectives

The proposed Project includes six objectives:

- To replace existing underutilized buildings with a new state of the art speculative industrial building that meets the current California Building Code and California Green Building Code Standards.
- To promote development that will generate both short-term and long-term employment opportunities for the community.
- To encourage development that will attract new businesses to the City of Long Beach.
- To redevelop an underutilized parcel with a new industrial building that will attract increased business, contributing to the City's tax base.
- To support development of a new industrial building that will attract high quality tenants and that will be competitive with similar facilities across the region.
- To encourage high quality development that derives benefit from the local transportation network and the close proximity of the Ports of Long Beach and Los Angeles.



SOURCE: Google Maps, 2023

N.T.S.

FIGURE 1-1: Regional and Site Location Map

5910 CHERRY AVENUE INDUSTRIAL BUILDING PROJECT

Kimley»Horn

SOURCE: Nearmap, 2023

N.T.S.

FIGURE 1-2: Aerial Photograph of the Project Site and Vicinity

5910 CHERRY AVENUE INDUSTRIAL BUILDING PROJECT

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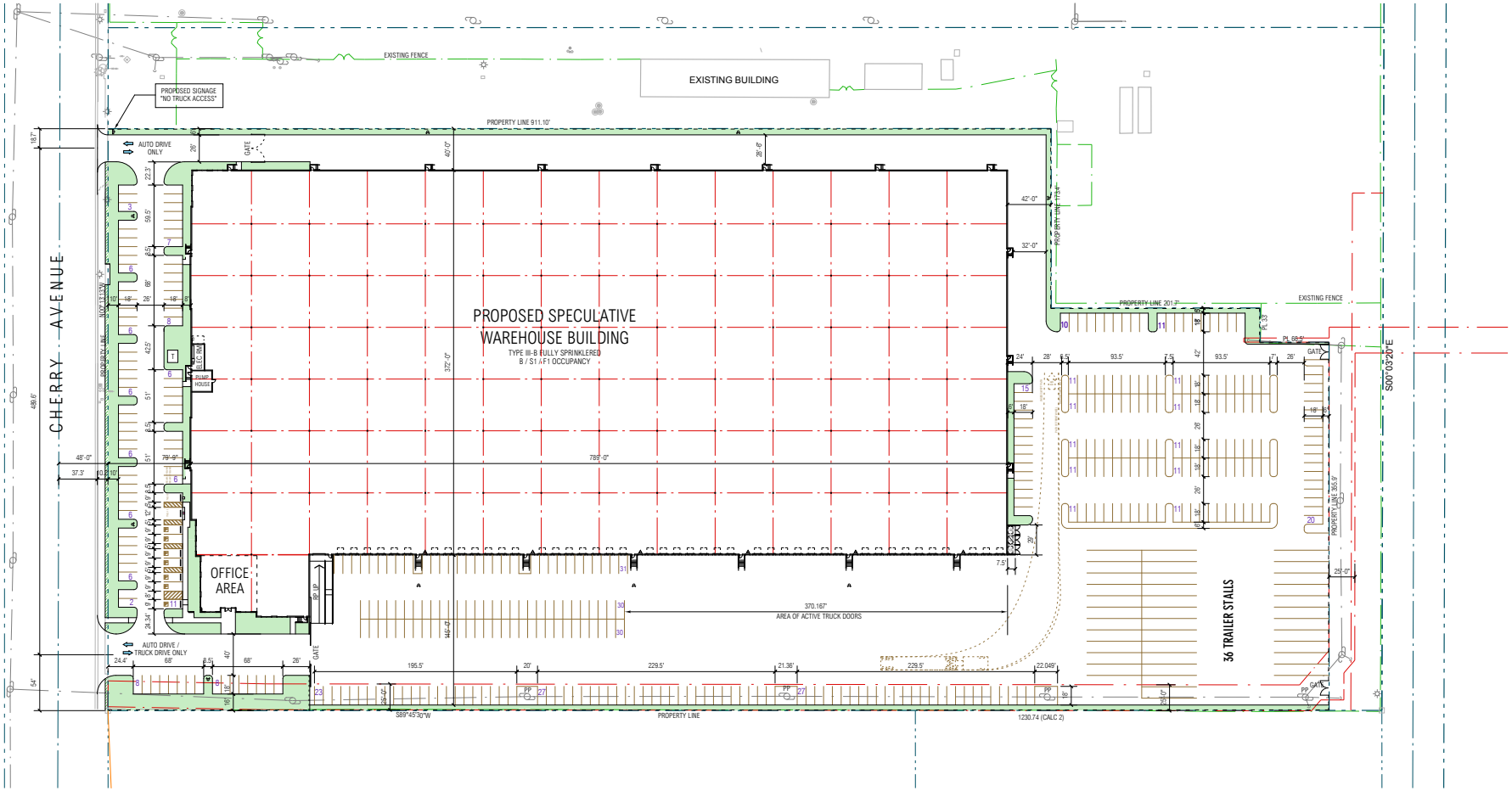

SOURCE: RGA; Link Logistics Real Estate, 2020

N.T.S.

FIGURE 1-3: Conceptual Site Plan

5910 CHERRY AVENUE INDUSTRIAL BUILDING PROJECT

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1.4 Required Project Approvals

In compliance with Sections 15050 and 15367 of the CEQA Guidelines, the City of Long Beach has been designated as the "lead agency," which is defined as "the public agency which has the principal responsibility for carrying out or approving a project." Approvals by the lead agency required for development of the proposed Project include, but may not be limited to the following: The proposed Project would require adoption by the Long Beach Planning Commission/City Council and the following discretionary approvals:

- CEQA Approval and certification of the EIR.
- A zoning code map amendment to rezone the Project site from General Industrial (IG) to Light Industrial (IL).
- A Site Plan Review for design of the proposed building.

In addition, ministerial permits, including demolition permit, grading permit, building permits, and public works permits, would be issued by the City to allow site preparation and construction of the proposed Project and off-site project infrastructure connections. The proposed Project would require the following ministerial approvals:

- A Demolition Permit to allow for removal of the existing on-site development.
- A Grading Permit to allow site preparation.
- Public Works Permits to allow for offsite improvements in the public right of way.
- Building Permits to allow for the construction of the proposed Project.

No approvals by responsible or trustee agencies have been identified for the proposed Project.

1.5 Overview of the CEQA Public Review Process for the Draft EIR

In compliance with the CEQA Guidelines, the City, as the Lead Agency for the Project, has provided opportunities for the public to participate in the environmental review process. As described below, throughout the environmental review process, an effort was made to inform, contact and solicit input from the public and various State, regional, and local government agencies and other interested parties on the Project.

Pursuant to Section 15082 of the CEQA Guidelines, a Notice of Preparation (NOP) was circulated to the State, regional, and local agencies and members of the public for a 32-day public review period. The public review period began Monday, October 9, 2023, and concluded Friday, November 10, 2023. The purpose of the NOP was to formally notice that the City was preparing a Draft EIR for the Project, and to solicit input regarding the scope and content of the environmental information to be included in the Draft EIR.

A public scoping meeting was held virtually on Zoom Video Communications platform on November 1, 2023. A presentation explaining the proposed Project was provided and attendees were given an opportunity to provide their comments on the scope of the Draft EIR. A total of 18 members of the public attended the EIR Scoping meeting. Comments were received from ten meeting participants. Two comment letters were received during the scoping period.

In accordance with CEQA Guidelines Section 15085, upon completion of the Draft EIR, a Notice of Availability (NOA) as well as copy of the Draft EIR were submitted to the State Clearinghouse, Governor's Office of Planning and Research for distribution to State agencies. The Draft EIR was circulated for a 46-day public review period that ran from March 15, 2024, through April 29, 2024, in compliance with Section 15105(a) of the State CEQA Guidelines. As required under Section 15086 of the State CEQA Guidelines, a NOA requesting comments of the Draft EIR were distributed to public agencies and interested parties.

During the public review period, the City of Long Beach received six comment letters on the Draft EIR from agencies and organizations through written correspondence and emails. An additional letter submitted after the comment period is also included. Comments received are presented and responded to in Chapter 2.0 Comments and Responses of the Final EIR. The original letter submittals are also included in **Appendix A, Original Comment Letters** of the Final EIR.

1.6 Organization of Final EIR

The Final EIR consists of the following four chapters and one appendix:

Chapter 1.0, Introduction. This Chapter describes the purpose of the Final EIR, provides a summary of the proposed Project, summarizes the Final EIR public review process, and presents the contents of the Final EIR.

Chapter 2.0, Comments and Responses. This chapter presents all of the comments received by the City during the 46 -day public review period of the Draft EIR (March 15, 2024 through April 29, 2024) as well as the response to those comments. An additional letter submitted after the comment period is also included and responded to. Copies of the original letters received during the public comment period are also included in **Appendix A, Original Comment Letters.**

Chapter 3.0, Corrections and Additions of the Draft EIR. This chapter includes revisions to the Draft EIR that represent minor changes or additions in response to some of the comments received on the Draft EIR and additional edits to provide clarification. Changes to the Draft EIR are shown with ~~strikethrough~~ text for deletions and underline text for additions. These changes are minor and do not add significant new information that would affect the analysis or conclusions presented in the Draft EIR. More specifically, CEQA requires recirculation of a Draft EIR only when "significant new information" is added to a Draft EIR after public notice of the availability of the Draft EIR has occurred (refer to California Public Resources Code Section 21092.1 and CEQA Guidelines Section 15088.5), but before the EIR is certified. Section 15088.5 of the CEQA Guidelines specifically states: "New information added to an EIR is not 'significant' unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to

implement. 'Significant new information' requiring recirculation includes, for example, a disclosure showing that:

New information added to an EIR is not 'significant' unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement. 'Significant new information' requiring recirculation includes, for example, a disclosure showing that:

- *A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.*
- *A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted to reduce the impact to a level of insignificance.*
- *A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it.*
- *The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded."*

CEQA Guidelines Section 15088.5 also provides that "[r]ecirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR. A decision not to recirculate an EIR must be supported by substantial evidence in the administrative record."

As demonstrated in this Final EIR, neither the comments submitted on the Draft EIR, the responses to these comments, or the corrections and additions presented in Chapter 3.0 of this Final EIR, constitute new significant information warranting recirculation of the Draft EIR as set forth in CEQA Guidelines Section 15088.5. Rather, the Draft EIR is comprehensive and has been prepared in accordance with CEQA.

Chapter 4.0, Mitigation Monitoring and Reporting Program. The Mitigation Monitoring and Reporting Program (MMRP) is the document that will be used by the enforcement and monitoring agencies responsible for the implementation of the Project's mitigation measures and Project Design Features. Mitigation measures and Project Design Features are listed by environmental topic.

Appendices

Appendix A: Original Comment Letters

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2. Comments and Responses

CEQA Guidelines Section 15088(a) states that "The lead agency shall evaluate comments on environmental issues received from persons who reviewed the draft EIR and shall prepare a written response. The lead agency shall respond to comments that were received during the noticed comment period and any extensions . . ." In accordance with these requirements, this Chapter of this Final EIR provides responses to each of the written comments received on the Draft EIR during the 46 day public comment period, which started March 15, 2024 and ended on April 29, 2024. **Table 2-1, *Comment Letters on the Draft EIR*,** which starts on page 2-2, provides a list of the comment letters received and a summary of the issues that were raised in comments on the Draft EIR.

Comments submitted during the public review period for the Draft EIR from Public Agencies, Community Organizations and Individuals are listed on **Table 2-1**. An additional letter submitted after the comment period is also included. The individual letters are each assigned an identification number. Each comment that requires a response within the letters is also assigned a number. For example, the first Public Agency listed (Letter No. 1) is the California Department of Transportation (Caltrans). The first comment received from Caltrans is therefore labeled Comment No. 1-1, and the responses to each comment are correspondingly numbered (i.e., Response No. 1-1). A copy of each comment letter, as submitted, is provided in **Appendix A of the Final EIR, Original Comment Letters.** As required by the CEQA Guidelines Section 15088(c), the focus of the responses to comments is on "the disposition of significant environmental issues raised." Therefore, detailed responses are not provided to comments that do not relate to environmental issues.

Table 2-1: Comment Letters on the Draft EIR

Letter No.	Commenter	Date
Agencies		
1	California Department of Transportation (Caltrans)	April 26, 2024
2	South Coast Air Quality Management District (SCAQMD)	April 09, 2024
3	Long Beach Unified School District (LBUSD)	April 5, 2024
4	City of Signal Hill	March 18, 2024
Organizations		
5	Long Beach Heritage	April 16, 2024
6	Golden Environmental Justice Alliance	May 20, 2024
7	Blum, Collins & Ho, LLP	April 29, 2024

LETTER NO. 1

Miya Edmonson, LDR/CEQA Branch Chief
California State Transportation Agency
100 S. Main Street, MS 16
Los Angeles, CA 90012

Received April 26, 2024

COMMENT NO. 1-1

Thank you for including the California Department of Transportation (Caltrans) in the review process for the above referenced project. The project is a single, approximately 304,344 square feet (sf), concrete, tilt-up industrial building. The proposed building would be 51 feet high and surrounded by parking areas that would include 338 at-grade parking stalls and 79 at-grade truck parking stalls. On-site passenger vehicle parking would be situated in front of the proposed building, along Cherry Avenue, along the south side of the lot, and in the rear of the building in the northeast corner of the lot. The building would feature 44-truck high-dock doors along the south elevation facing the abutting commercial site. Approximately 10,066 sf of office space would be accommodated in the southwest corner of the building along Cherry Avenue. The office space would be located on the first floor and mezzanine level of the proposed building. To prepare for redevelopment of the parcel with the proposed project, the existing 8 buildings would be demolished and removed from the project site. The proposed project improvements are consistent with the land use and development standards of the Industrial (IG) zoning district in which the project is situated. The City is currently in the process of updating the zoning ordinance to reflect the new PlaceType land uses incorporated in the General Plan's Land Use Element. The Project site is currently zoned (IG) General Industrial.

RESPONSE NO. 1-1

This comment provides a summary of the proposed Project. This comment is noted for the record and will be provided to the decision-makers for review and consideration. Please refer to the detailed Project information as stated within Chapter 2 Project Description, of the Draft EIR. Because the comment does not raise a substantive issue on the content of the Draft EIR, no further response is warranted.

COMMENT NO. 1-2

After reviewing the DEIR, Caltrans has the following comments:

With 304,344 square feet of new industrial use, 338 car parking spaces, 79 truck parking stalls, and 44 truck-high dock doors, the 5910 Cherry Avenue Industrial Building Project will induce demand for a consequential number of additional vehicle trips and vehicle miles traveled (VMT). This is stated in the Transportation section (4.18) of the DEIR where it was found that all 7 tenant use options would result in a significant VMT impact. Caltrans does not concur that these impacts are unavoidable. The currently proposed mitigation measures are inadequate to offset the impacts of the project, as it is designed in the same model of development that has proven to be unsustainable long-term.

RESPONSE NO. 1-2

This comment is noted for the record and will be provided to the decision makers for review and consideration. The comment disagrees with the Draft EIR's conclusion that Vehicle Miles Traveled (VMT) with respect to all tenant options. The comment also states that the Draft EIR mitigation measures for VMT impacts are inadequate to reduce the VMT impacts of the proposed Project.

Transportation impacts, including VMT analysis, were addressed within Section 4.18 Transportation of the Draft EIR, with supporting information provided within Appendix M Traffic Analysis of the Draft EIR. The VMT analysis that was completed for the Draft EIR provided a more conservative analysis of the proposed Project than what is recommended by the City or State. The City of Long Beach's adopted *Traffic Impact Analysis Guidelines* recommends using the efficiency metric VMT per employee for industrial land use projects. Additionally, the Governor's Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA (December 2018)* requires only the analysis of passenger vehicles and light trucks for VMT. The proposed Project's VMT analysis provided a conservative analysis by calculating the proposed Project's total VMT per the service population. The total VMT is comprised of employee trips as well as truck trips. The inclusion of truck trips, which is not required per City and State guidelines, in the VMT analysis triggers the significant impact. If trucks were excluded in the VMT analysis, the proposed Project's VMT would have been less than significant.

As stated on pages 4.18.8 through 4.18-11 within Section 4.18 Transportation of the Draft EIR, even with application of feasible mitigation, the proposed Project VMT impacts would be significant and unavoidable. The proposed mitigation includes a voluntary Commute Trip Reduction program to encourage carpooling and alternative modes of transportation and employer provided transit passes. These mitigation measures can reduce employee related VMT; however, the VMT related to truck traffic will remain unchanged resulting in a significant and unavoidable impact.

Based on the substantial evidence presented in the Draft EIR, and the whole record before the Lead Agency, VMT mitigation identified in the Draft EIR are considered adequate and appropriate. Findings and conclusions of the Draft EIR are not affected. Revisions to the Draft EIR are not required.

COMMENT NO. 1-3

Caltrans recommends the following:

- Reducing the amount of parking whenever possible. Research looking at the relationship between land-use, parking, and transportation indicates that the amount of car parking supplied can undermine a project's ability to encourage public transit and active modes of transportation.

RESPONSE NO. 1-3

The comment recommends reducing the amount of parking whenever possible to encourage public transit and active modes of transportation.

It should be noted that parking own is not considered a CEQA issue. The proposed Project is proposing to provide 338 parking stalls and 79 truck parking stalls, which would be provided for either one of the seven tenant use options. Because the actual tenant of the proposed building is as of yet

unknown, reducing the proposed number of parking spaces may result in an insufficient number of parking spaces for the final tenant. Therefore, it is not possible for the proposed Project to further reduce the amount of parking. Additionally, Caltrans provides no evidence that reducing proposed Project parking would in this instance demonstrably or materially reduce Project VMT.

Nevertheless, the proposed Project would promote public transit use by not conflicting with existing and proposed pedestrian and public transit facilities, as further expounded on pages 4.18-8 and 4.18-9, within Section 4.18 Transportation of the Draft EIR. The proposed Project would also be required to implement Mitigation Measure (MM) TRA-1 (Implement a Voluntary Commute Trip Reduction Program) and TRA-2 (Employer Provided Transit Passes), as further described on page 4.18-13 in Section 4.18 Transportation of the Draft EIR, which would further promote use the use of alternative modes of transportation for employees without the reduction of parking spaces. Findings and conclusions of the Draft EIR are not affected. Revisions to the Draft EIR are not required.

COMMENT NO. 1-4

- Invest in alternative modes of freight movement, such as rail, which is not only more efficient but also more easily converted to carbon neutral energy sources in the future.

RESPONSE NO. 1-4

The comment recommends investing in alternative modes of freight movement such as rail. The comment provides no indication of how, or to what extent "investment in alternative modes of freight transport" would demonstrably or materially reduce proposed Project VMT impacts. Additionally, there is not an existing mechanism for the proposed Project to invest in alternative modes of freight transport such that Project investments would track to or correlate with any potential reductions in Project VMT.

As described on pages 2-3 and 2-4, within Chapter 2 Project Description of the Draft EIR, the Union Pacific rail line is located east of the proposed Project site. Although the Union Pacific Railroad is a freight-hauling railroad, there are no Union Pacific Railroad junctions located near the proposed Project site and constructing a new rail line to connect to the proposed Project site is outside the purview of the proposed Project and would not be feasible. Findings and conclusions of the Draft EIR are not affected. Revisions to the Draft EIR are not required.

COMMENT NO. 1-5

- Due to the increased volume of truck trips, a substantial contribution should be made to a city fund that will build safer infrastructure for people walking, riding bikes, and taking transit throughout the city. The most effective methods to reduce pedestrian and bicyclist exposure to cars and trucks is through physical design and geometrics. These methods include the construction of physically separated facilities such as Class IV bike lanes, wide sidewalks, pedestrian refuge islands, landscaping, street furniture, and reductions in crossing distances through roadway narrowing.

RESPONSE NO. 1-5

The comment states that contributions should be made to a city fund that would build safer infrastructure for people walking, riding bikes, and taking transit throughout the City. As discussed on pages 4.18-7 through 4.18-8, within Section 4.18 Transportation of the Draft EIR, the proposed Project would not conflict with programs, plans, policies, or ordinances addressing the City circulation system, including transit, roadway, bicycle and pedestrian facilities. The proposed Project would demonstrably not result in adverse effects to alternative transportation systems or alternative transportation modes.

As noted on page 4.18-11, within Section 4.18 Transportation of the Draft EIR, the proposed Project would implement a construction Traffic Management Plan (TMP) that would limit potential traffic conflicts. The TMP includes recommended improvements to enable safe access to the proposed Project site. The proposed Project would also be required to implement MM TRA-1 and TRA-2, which aim to further promote public transit and active transportation use.

The proposed Project also includes improvements to enable safe access to the proposed Project. Recommended improvements include:

- **Recommendation 1 – Cherry Avenue & Driveway 1 (#6):** The following improvements are necessary to accommodate site access:

o Project to stripe a southbound left turn lane with a minimum of 100-feet of storage.

o Project to install a stop control on the westbound approach and construct a shared left-right turn lane (Project driveway).

- **Recommendation 2 – Cherry Avenue & 59th Street/Driveway 2 (#8):** The following improvements are necessary to accommodate site access:

o Project to stripe a southbound left turn lane with a minimum of 100-feet of storage.

o Project to install a stop control on the westbound approach and construct a shared left-through-right turn lane (Project driveway).

- **Recommendation 3 – Cherry Avenue:** Cherry Avenue is a north-south oriented roadway located on the Project's western boundary. The proposed Project would construct sidewalk, curb-and-gutter, and landscaping improvements on Cherry Avenue, along the Project's frontage, consistent with the City's standards.

Furthermore, the proposed Project would be required to pay Development Impact Fees which would help to support transportation improvements in the City. Findings and conclusions of the Draft EIR are not affected. Revisions to the Draft EIR are not required.

COMMENT NO. 1-6

- Additional studies should be conducted to develop additional mitigation measures that include robust walking, biking, and transit infrastructure to further reduce the Project's VMT impact below the threshold of significance.

RESPONSE NO. 1-6

The comment states that additional studies should be conducted to develop additional mitigation measures that would further reduce the proposed Project's VMT impact below the threshold of significance. Transportation impacts, including VMT analysis, were addressed within Section 4.18 Transportation of the Draft EIR, with supporting information provided within Appendix M Traffic Analyses of the Draft EIR. The proposed Project's VMT analysis provided a conservative analysis by calculating the proposed Project's total VMT per the service population. The total VMT is comprised of employee trips as well as truck trips. The inclusion of truck trips, which is not required per City and State guidelines, in the VMT analysis triggers the significant impact. If trucks were excluded in the VMT analysis, the Project's VMT would have been less than significant.

As noted in Response 1-5, the proposed Project would include street improvements that would ensure safe access to the proposed Project site. As discussed on pages 4.18-7 through 4.18-8, within Section 4.18 Transportation of the Draft EIR, the proposed Project would not conflict with programs, plans, policies, or ordinances addressing the City circulation system, including transit, roadway, bicycle and pedestrian facilities. Furthermore, as discussed on page 4.18-13 within Section 4.18 Transportation of the Draft EIR, the proposed Project would implement MM TRA-1 and TRA-2, which aim to promote public transit and active transportation use. The proposed Project would demonstrably not result in adverse effects to alternative transportation systems or alternative transportation modes. Additionally, mandated development impact fees paid by the proposed Project would be available to the City for its prioritized improvement of area transportation system(s), acting to offset any incremental effects of the proposed Project on the area circulation system.

Moreover, as provided at CEQA Guidelines Section 15204, "CEQA does not require a lead agency to conduct every test or perform all research, study, and experimentation recommended or demanded by commentors [such as the analysis requested by Caltrans]. When responding to comments, lead agencies need only respond to significant environmental issues and do not need to provide all information requested by reviewers, as long as a good faith effort at full disclosure is made in the EIR." Here, the City has made such a good faith effort at full disclosure of the proposed Project's VMT impacts. The analysis is supported by the City's professional experience with similar developments and is substantiated by quantified analysis provided by the proposed Project traffic engineering experts. Findings and conclusions of the Draft EIR are not affected. Revisions to the Draft EIR are not required.

COMMENT NO. 1-7

Following construction, a study should be conducted to confirm that the proposed mitigation measures are sufficiently offsetting the Project generated VMT. If not, new and/or additional mitigation measures need to be implemented.

RESPONSE NO. 1-7

The comment asserts that a study should be conducted to confirm that the mitigation measures proposed in Comments 1-3 through 1-6 are sufficiently offsetting the proposed Project-generated VMT. Because the comment does not raise a substantive issue on the content of the Draft EIR, no further response is warranted. The proposed mitigation includes a voluntary Commute Trip Reduction program to encourage carpooling and alternative modes of transportation and employer

provided transit passes. If employees choose to change their commute behavior, these mitigation measures can reduce employee related VMT; however, the VMT related to truck traffic will remain unchanged resulting in a significant and unavoidable impact. Additionally, the proposed Project's VMT analysis provided a conservative analysis by calculating the Project's total VMT per the service population. The total VMT is comprised of employee trips as well as truck trips. The inclusion of truck trips, which is not required per City and State guidelines, in the VMT analysis triggers the significant impact. If trucks were excluded in the VMT analysis, the proposed Project's VMT would have been less than significant.

COMMENT NO. 1-8

Additionally, an encroachment permit will be required for any project work proposed near Caltrans Right of Way and all environmental concerns must be adequately addressed. Please note that any modifications to the State facilities will be subject to additional review by the Office of Permits prior to issuance of the permit.

RESPONSE NO. 1-8

The commenter mentions that an encroachment permit will be required for any proposed project work proposed near Caltrans Right of Way. As discussed within Chapter 2 Project Description of the Draft EIR, the proposed Project site is not located near a State-owned highway facility. The nearest Caltrans highway facility is SR 91 located approximately 0.85 miles north of the Project site. Therefore, development of the proposed Project would not encroach on a Caltrans highway facility, and the proposed Project is not required to obtain an encroachment permit. Because the comment does not raise a substantive issue on the content of the Draft EIR, no further response is warranted.

COMMENT NO. 1-9

Finally, construction of the proposed project would involve deliveries of materials, components, and supplies to the various sites, and will involve oversized trucks. As a result, prior to issuance of building or grading permits for the project site, the applicant shall prepare a Construction Traffic Management Plan (CTMP) for review and approval by City staff to reduce any impacts to less than significant levels. The CTMP needs to specify the duration of construction period and provide construction analysis on significant impacts due to increase in construction truck traffic on highways not designated as truck routes. It should also specify any work that would affect the freeways and its facilities, and that Caltrans has the jurisdiction for review and approval. Transportation of heavy construction equipment and/or materials, which requires the use of oversized-transport vehicles on State highways, will require a transportation permit from Caltrans.

If you have any questions, please contact project coordinator Anthony Higgins, at anthony.higgins@dot.ca.gov and refer to GTS #07-LA-2023-04486.

RESPONSE NO. 1-9

The comment states that construction of the proposed Project would require the preparation of a construction TMP to reduce proposed Project impacts from construction traffic activities to less than

significant levels. The comment further elaborates on the required contents of the construction TMP. As discussed within Section 4.18 Transportation of the Draft EIR, the proposed Project would be required by the Long Beach Department of Public Works to develop a construction TMP as part of the proposed Project permit application, which would limit potential traffic conflicts during construction. Caltrans review and approval processes for actions that would affect Caltrans' facilities are acknowledged and Caltrans contact information is acknowledged. The proposed Project will comply with all relevant local and State regulations regarding the transport of equipment and materials during the construction phase, including Caltrans transportation permits if needed.

Findings and conclusions of the Draft EIR are not affected. Revisions to the Draft EIR are not required.

LETTER NO.2

Sahar Ghadimi, Air Quality Specialist, CEQA IGR
Planning, Rule Development & Implementation
South Coast Air Quality Management District
21865 Copley Drive,
Diamond Bar, CA 91765

Received April 09, 2024

COMMENT NO. 2-1

South Coast AQMD staff received a Notice of Availability of a Draft Environmental Impact Report for the Cherry Avenue Industrial Building Project (South Coast AQMD Control Number: LAC240319-02). Staff is currently in the process of reviewing the Draft EIR.

RESPONSE NO. 2-1

Because the comment does not raise a substantive issue on the content of the Draft EIR, no further response is warranted.

COMMENT NO. 2-2

Please provide an electronic copy of any live modeling and emission calculation files (complete files, not summaries) that were used to quantify the air quality impacts from construction and/or operation of the Proposed Project as applicable, including the following:

CalEEMod, Input Files (.csv files).

Live EMFAC output files.

- Any emission calculation file(s) (live version of excel file(s); no PDF) used to calculate the Project's emission sources.

  (i.e., truck operations).

You may send the above-mentioned files via a Dropbox link in which they may be accessed and downloaded by South Coast AQMD staff. Without all files and supporting documentation, South Coast AQMD staff will be unable to complete a review of the air quality analyses in a timely manner. Any delays in providing all supporting documentation will require additional time for review beyond the end of the comment period.

If you have any questions regarding this request, please contact me. Thank you.

RESPONSE NO. 2-2

This comment is noted for the record. An electronic copy of all modeling and emission calculation files were provided to SCAQMD on April 11, 2024 (see the email below). Because the comment does not raise a substantive issue on the content of the Draft EIR, no further response is warranted.

From: LBDS-EIR-Comments <LBDS-EIR-Comments@longbeach.gov>
Sent: Thursday, April 11, 2024 3:51 PM
To: Sahar Ghadimi <sghadimi@aqmd.gov>; LBDS-EIR-Comments <LBDS-EIR-Comments@longbeach.gov>
Cc: Sam Wang <swang1@aqmd.gov>; Amy Harbin <Amy.Harbin@longbeach.gov>
Subject: RE: Technical data request for the Cherry Avenue Industrial Building Project.

Good afternoon,

Please see the link below. If it does not work, please let me know ASAP.

https://urbanxroads.egnyte.com/dl/qoRZQz0uFg

Thank you.
Amy

Amy L. Harbin, AICP
Planner

Community Development | Planning Bureau
411 W. Ocean Blvd., 3rd Fl. | Long Beach, CA 90802
Office: 562.570.6872

LONGBEACH
COMMUNITY
DEVELOPMENT

I will be out of the office beginning April 22nd, returning on April 30th. I will have limited access to email.

LETTER NO. 3

David Miranda, Executive Director
City of Long Unified School District
411 West Ocean Boulevard, 3rd Floor
Long Beach, California 90802

Received April 05, 2024

COMMENT NO. 3-1

The Long Beach Unified School District ("District") is in receipt of the City of Long Beach's ("City") Notice of Availability of a Draft Environmental Impact Report for the Project located at 5910 Cherry Avenue. The District submits this letter to notify the City of its comments and concerns, with its close proximity to Harte and Gant Elementary Schools.

RESPONSE NO. 3-1

This comment provides a general introduction to the issues raised in this letter. It is assumed that the commenter is referring to Grant Elementary School located at 1225 East 64th Street, approximately 0.69 miles northwest of the proposed Project site. Responses to the specific individual comments raised in this letter are provided below in Response to Comments 3-2 through 3-5. Because the comment does not raise a substantive issue on the content of the Draft EIR, no further response is warranted.

COMMENT NO. 3-2

The project is a single, approximately 304,344 sf, concrete, tilt-up industrial building. The proposed building would be 51 feet high and surrounded by parking areas that would include 338 at-grade parking stalls and 79 at-grade truck parking stalls. Passenger vehicle parking would be situated in front of the proposed building, along Cherry Avenue, along the south side of the lot, and in the rear of the building in the northeast corner of the lot. The building would feature 44-truck high- dock doors along the south elevation facing the abutting commercial site. Approximately 10,066 sf of office space would be accommodated in the southwest corner of the building along Cherry Avenue on the first floor and mezzanine levels of the proposed building. To prepare for redevelopment of the parcel with the proposed project, the existing 8 buildings would be demolished and removed from the project site.

RESPONSE NO. 3-2

This comment provides a summary of the proposed Project. Please refer also to detailed proposed Project information as stated within Chapter 2, Project Description of the Draft EIR. This comment is noted and will be provided to the decision makers for review and consideration. Because the comment does not raise a substantive issue on the content of the Draft EIR, no further response is warranted.

COMMENT NO. 3-3

Concerned about heavy traffic at nearby schools during drop off/pick up times. How will this impact nearby schools? Is the City able to direct truck routes away from the schools?

RESPONSE NO. 3-3

As discussed in the Draft EIR, the nearest school to the proposed Project site is Harte Elementary School (1671 E. Phillips Street), located approximately 0.23-mile to the southwest of the proposed Project site. Grant Elementary School is located approximately 0.69 miles northwest of the proposed Project site and was outside the evaluated 0.25-mile radius of the proposed Project site; therefore Grant Elementary School was not analyzed specifically in the Draft EIR.

As described on page 4.18-11 of Section 4.18, Transportation of the Draft EIR, proposed Project construction activities would be limited to the proposed Project site and would be subject to a construction TMP that would limit potential traffic conflicts. As also described on page 4.18-3, Section 4.18, Transportation, of the Draft EIR the proposed Project site connects to SR 91 via Cherry Avenue, which is a major thoroughfare and designated truck route in the city of Long Beach. Furthermore, according to the City of Long Beach General Plan Mobility Element, neither Harte Elementary School nor Grant Elementary School are located along a major truck route. Therefore, project truck traffic will not be accessing roadways where local schools are located.

Because of the requirement to use truck routes only Project truck traffic would not travel west of the proposed Project site along South Street and would not affect or conflict with vehicles accessing nearby schools (e.g., Harte Elementary School). As stated within Section 4.18 Transportation of the Draft EIR, the City would enforce use of truck routes per MOG Policy 14-2: “Adopt and enforce truck routes to minimize the impacts of truck emissions on the community.” It should also be noted that existing traffic counts utilized for the peak hour intersection operations analyses were collected on May 24, 2023, while local schools were still in session for the 2022-2023 School Year. These traffic counts identified vehicles by classification (passenger cars and trucks by axle type).

The Draft EIR also evaluates potential indirect effects of proposed Project traffic at area land uses (including school land uses) and substantiates that these impacts would be less-than-significant. Specifically, as stated on pages 4.18-10 through 4.18-12 within Section 4.18 Transportation of the Draft EIR, the proposed Project would not substantially increase traffic/transportation hazards due to geometric design features or incompatible uses. Potential health effects of all proposed Project-source air pollutants (including transportation-source air pollutants) at all receptor land uses (including school land uses) is substantiated to be less-than-significant at stated within Section 4.4, Air Quality of the Draft EIR Appendix B, Air Quality Impact Analysis; and Draft EIR Appendix C, Health Risk Assessment. Potential effects of all proposed Project-source noise (including transportation-source noise) at all receptor land uses (including school land uses) is substantiated to be less-than-significant within Section 4.14 Noise of the Draft EIR; and within Appendix L, Noise and Vibration Analysis of the Draft EIR.

Because the comment does not raise a substantive issue on the content of the Draft EIR, no further response is warranted.

COMMENT NO. 3-4

Please describe the types of activities and/or storage that will occur within the warehouse. It is unclear if the warehouse will house toxic chemicals for shipment for example.

RESPONSE NO. 3-4

As discussed on page 4.10-13, within Section 4.10 Hazards and Hazardous Materials of the Draft EIR, the proposed Project would construct a speculative industrial building. The ultimate tenant has not been identified and the activities therein have yet to be determined. It is possible that proposed Project operations would involve uses employing common maintenance and janitorial supplies, such as cleaners, paints, solvents, and fertilizers and pesticides for site landscaping. These materials would be unlikely to be employed in anything more than low quantities that would not affect uses beyond the proposed Project site. Any routine transport, use, and disposal of these materials during proposed Project operations or construction would adhere to federal, State, and local regulations for transport, handling, storage, and disposal of hazardous substances. Furthermore, hazardous materials/chemicals such as cleaners, paints, solvents, and fertilizers in low quantities do not pose a significant threat related to the release of hazardous materials into the environment. As stated on pages 4.10-12 through 4.10-16 within Section 4.10 Hazards and Hazardous Materials of the Draft EIR, the proposed Project would not result in potentially significant hazards/hazardous materials impacts. Potential hazards/hazardous materials impacts at area schools is specifically addressed on page 4.10-14 of the Draft EIR, and is substantiated to be less-than-significant.

Because the comment does not raise a substantive issue on the content of the Draft EIR, no further response is warranted.

COMMENT NO. 3-5

The District appreciates the opportunity to review and comment on this project and would welcome an opportunity to discuss this matter with the City of Long Beach and to work together on addressing our concerns.

Please feel free to contact me at 562-997-7550 or DMiranda1@lbschools.net.

RESPONSE NO. 3-5

This comment provides a general conclusion regarding the comments raised in this letter. Response to the comments contained in this letter are provided above in Responses to Comments 3-1 through 3-4.

Because the comment does not raise a substantive issue on the content of the Draft EIR, no further response is warranted.

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LETTER NO. 4

Colleen Doan, Community Development Director
Signal Hill Community Development
2175 Cherry Avenue
Signal Hill, CA 90755

Received March 18, 2024

COMMENT NO. 4-1

Thank you for sending Amy. Are there any concerns about truck traffic, noise, 24/7 activity etc. so close to residential neighborhoods? Is Cherry Ave. a truck route in LB?

RESPONSE NO. 4-1

As indicated on pages 4.14-16 to 4.14-18, within Section 4.14 Noise of the Draft EIR, seven potential sensitive receptor locations, labeled R1 through R7, were identified in the proposed Project site area in order to assess the potential for construction-related and operational noise impacts associated with the proposed Project. These included nearby residential and religious uses and the Los Angeles County's Department of Animal Care and Control Building. As discussed on pages 4.14-19 through 4.14-22, within Section Noise, of the Draft EIR, construction noise impacts would be less than significant with mitigation. Specifically, the following mitigation measures are included in the Draft EIR to reduce potential construction impacts to less than significant:

- Mitigation Measure MM NOI-1, Noise Control Barrier
- Mitigation Measure MM NOI-2, Construction Hours
- Mitigation Measure MM NOI-3, Equipment Mufflers
- Mitigation Measure MM NOI-4, Equipment Location
- Mitigation Measure MM NOI-5, Staging Areas
- Mitigation Measure MM NOI-6, Delivery Hours
- Mitigation Measure MM NOI-7, Electric Equipment
- Mitigation Measure MM NOI-8, Construction Site Noise Limits

Furthermore, as stated on page 4.14-22, within Section 4.14 Noise of the Draft EIR, the proposed Project would not include nighttime construction activities and construction activities would be limited between the hours of 7:00 p.m. and 7:00 a.m.

Regarding operational noise, as indicated on pages 4.14-23 through 4.14-28 within Section 4.14, Noise of the Draft EIR, operational noise impacts are considered to be less than significant.

Regarding traffic, as discussed on pages 4.18-3 and 4.18-11, within Section 4.18 Transportation of the Draft EIR, the proposed Project site connects to SR 91 via Cherry Avenue, which is a major throughfare and designated truck route in the city of Long Beach. Proposed Project construction would be confined to the bounds of the affected parcels and would not affect or alter off-site transportation facilities or designated truck routes. Furthermore, construction activities would not impact traffic and lane closures would not be required. A Traffic Management Plan (TMP) would be required as part of the permit application to address traffic control requirements in the construction area.

The proposed Project also includes improvements to enable safe access to the Project. Recommended improvements include:

- **Recommendation 1 – Cherry Avenue & Driveway 1 (#6):** The following improvements are necessary to accommodate site access:
    - Project to stripe a southbound left turn lane with a minimum of 100-feet of storage.
    - Project to install a stop control on the westbound approach and construct a shared left-right turn lane (Project driveway).
- **Recommendation 2 – Cherry Avenue & 59th Street/Driveway 2 (#8):** The following improvements are necessary to accommodate site access:
    - Project to stripe a southbound left turn lane with a minimum of 100-feet of storage.
    - Project to install a stop control on the westbound approach and construct a shared left-through-right turn lane (Project driveway).
- **Recommendation 3 – Cherry Avenue:** Cherry Avenue is a north-south oriented roadway located on the Project's western boundary. The proposed Project would construct sidewalk, curb-and-gutter, and landscaping improvements on Cherry Avenue, along the Project's frontage, consistent with the City's standards.

Regarding VMT, the proposed Project would implement the following Mitigation Measures to help reduce impacts, however impacts to VMT would remain significant and unavoidable.

- Mitigation Measure TRA-1, Implement a Voluntary Commute Trip Reduction Program
- Mitigation Measure TRA-2, Employer Provided Transit Passes

Findings and conclusions of the Draft EIR are not affected. Revisions to the Draft EIR are not required.

LETTER NO. 5

Louise Ivers, Vice President for Advocacy
Long Beach Heritage
Livers@csudh.edu

Received April 16, 2024.

COMMENT NO. 5-1

In response to the EIR for the Cherry Avenue Industrial Building Project, Long Beach Heritage advocates for the retention and adaptive reuse of the former Atlantic Richfield Office Building at 5200 Cherry Avenue.

RESPONSE NO. 5-1

As analyzed within Chapter 5 Alternatives of the Draft EIR, the proposed Project considers five alternatives, two of which would include the adaptive reuse of the existing building. Alternative 2: Adaptive Reuse of Existing Building – Industrial and Alternative 3: Adaptive Reuse of Existing Buildings – Office considers the adaptive reuse of the existing office building to accommodate a new industrial use and a new office use. As stated on page 5-111 through 5-112, within Chapter 5 Alternatives of the Draft EIR, while Alternative 3 would be the environmentally superior alternative, it would only partially meet the proposed Project objectives. Furthermore, in the current market environment, leasing a single-story Class C, suburban office is economically infeasible given there is no demand. Therefore, the adaptive reuse of the existing office building was considered; however, it would not meet proposed Project objectives. Findings and conclusions of the Draft EIR are not affected. Revisions to the Draft EIR are not required.

COMMENT NO. 5-2

Although somewhat altered over the years, this Mid-Century Modern structure is still a fine example of the work of Kenneth S. Wing (1901-1986), one of Long Beach's premier architects. Its horizontal façade clad with brick and glass, louvered sunshades, and wings joined at right angles are characteristic of Kenneth Wing's mature style. Perhaps it could be incorporated into the new warehouse that will be constructed at the site. The greenest design is the retention of old buildings, not their total demolition.

RESPONSE NO. 5-2

A Historical Resource Analysis Report (HRAR) was prepared by Urbana Preservation & Planning, LLC to evaluate the 5900 Cherry Avenue property for eligibility under the City of Long Beach Criteria for Designation of Landmarks and Historic Districts (Local Register) and the California Register of Historical Resources (CRHR), and to further analyze the potential for impacts to historical resources by the Proposed Project. The HRAR concluded that the 5900 Cherry Avenue property is not eligible for listing on the Local Register and the CRHR, stating:

> The property is one of many Richfield offices built during the company's existence and in the mid-century period and has not been directly associated with a specific event or person. It is not significant under CRHR / Local Register Criterion 1/A and 2/B. The International style office building that fronts the property has been altered such that it does not physically convey significance under CRHR / Local Register C/3 for the embodiment of the International style or for the work of Master Architect Kenneth Wing, Sr., FAIA. It has not been found significant under CRHR / Local Register Criterion 4/D as it has not yielded and does not have the potential to yield information important on local, regional, state, or national history. In its current appearance, the 5900 Cherry Avenue property does not meet the definition of a historical resource.

Specific to Criterion C/3 the HRAR concluded:

> The office building at 5900 Cherry Avenue is significant under CRHR Criterion 3 / Local Register Criterion C as an International style commercial building designed by Master Architect Kenneth Wing, Sr. FAIA with a period of significance of 1953.
>
> Kenneth S. Wing is listed in the 2009 context as one of the "known architects, builders, and developers who contributed to the development of the City of Long Beach from 1889 to 1965." The context notes that the list serves "to acknowledge the contributions of those individuals and firms that shaped Long Beach and assist in the identification of potentially significant properties."50 Four properties associated with Kenneth S. Wing are designated Long Beach landmarks. The 1918 Harnett House is the only individually designated historic landmark in the Sunrise Boulevard Historic District. A 2018 description of the building notes it was "remodeled in 1944 by famed architect Kenneth Wing Sr." The Harriman Jones clinic is described as Kenneth Wing's first major commission in 1930. It was an innovative medical building which provided a diverse set of services, including a hospital, under one roof. Dr. Harriman Jones came to Long Beach in 1902 and became the City's first Health Officer. In 2018, the property at 830 Santiago Avenue in Long Beach was placed on the Long Beach landmark list. Built in 1937, the residence is identified as a good example of the sophisticated designs of Kenneth S. Wing. The 1941 Late Moderne style Long Beach airport terminal was designed by Horace W. Austin and Kenneth S. Wing and is also a Long Beach landmark.51 Although not designated on the Long Beach landmark list, the former City Hall East building underwent adaptive reuse in 2016. A 2026 description of the project stated the office was "built for Southern California Edison in 1959 by noted local architect Kenneth Wing, the building was later used as municipal office space for City Hall and the Long Beach Police Department before becoming vacant in 2005." Highlighted in the 2009 context and not on the landmark list is the First Baptist Church (Pine Avenue and 10th Street) designed by architect Kenneth S. Wing and built in 1948/1949.
>
> Wing's body of work is extensive and his design for the Richfield office was a notable International style project with four uniquely situated wings radiating out from a central courtyard and breezeway. The incremental alterations to Wing's original design, loss of materials, interior circulation patterns, and view corridors has degraded the building such that it is no longer a masterful example of Mr. Wing's work. Substantial rehabilitation is necessary to return the building to its original integrity. Consequently, while the property is significant under CRHR / Local Register Criterion 3/C, it does not retain adequate integrity to convey its identified significance.

The HRAR underwent technical peer review. The peer review was completed by Susan Woods, Ph.D. Senior Architectural Historian / Architectural History Lead of Michael Baker International. The main objective of the peer review is to assess whether the report's conclusions and recommendations are adequately supported by information contained in the report, including adequacy of methods, results, and management recommendations—and whether the report appears to provide information sufficient for a defensible administrative record for the project. The peer review provided the following conclusions.

> [O]ur review indicates that report is thorough, comprehensive, and professionally written and appears sufficient as a defensible administrative record for the Project. We concur with the findings that the subject property at 5900 Cherry Avenue in Long Beach, California, appears historically significant under CRHR Criterion 3/Local Register Criterion C as an International style commercial building designed by Master Architect Kenneth Wing, Sr. FAIA. We also concur with the analysis that the incremental design alterations and loss of original materials has degraded the integrity of the property to the extent that it can no longer evidence its historical significance and is, therefore, not eligible for the CRHR or Local Register. We concur that as a result, the subject property does not meet the definition of an historical resource pursuant to CEQA Guidelines Section 15064.5 and is not considered eligible for listing in the Local Register.

As summarized in the HRAR and peer review report, and discussed on pages 4.6-14 through 4.6.16, within Section 4.6 Cultural Resources of the Draft EIR, the Project site does not meet the criteria to be deemed a historic resource. This Comment 5-2 is similar to Comment 5-1, in that it advocates for retention and reuse of the existing building. Refer to Response 5-1 for an explanation of economic infeasibility. Because this comment 5-2 does not raise a substantive issue on the content of the Draft EIR, no further response is warranted.

LETTER NO. 6

Joe Bour, Executive Director
Golden State Environmental Justice Alliance
P.O. Box 79222
Corona, CA 92877

Received May 20, 2024.

COMMENT NO. 6-1

On behalf of the Golden State Environmental Justice Alliance ("GSEJA"), I am writing to you regarding the 5910 Cherry Avenue Industrial Building EIR (SCH NO. 2023100342) ("Project").

GSEJA is withdrawing its comment letter and opposition to the Project. The Project's developer has addressed GSEJA's concerns about environmental mitigation.

RESPONSE NO. 6-1

This comment is noted for the record. The Project Applicant has resolved all of GSEJA's concerns discussed in Letter 7 below.

LETTER NO. 7

Blum, Collins, & Ho LLP
Attorneys at Law
Aon Center
707 Wilshire Boulevard Suite 4880
Los Angeles, California 90017

Received April 29, 2024

COMMENT NO 7-1

Thank you for the opportunity to comment on the Environmental Impact Report (EIR) for the proposed 5910 Cherry Avenue Industrial Building. Please accept and consider these comments on behalf of Golden State Environmental Justice Alliance. Also, Golden State Environmental Justice Alliance formally requests to be added to the public interest list regarding any subsequent environmental documents, public notices, public hearings, and notices of determination for this project. Send all communications to Golden State Environmental Justice Alliance P.O. Box 79222 Corona, CA 92877.

RESPONSE NO 7-1

This introductory comment is noted. Because the comment does not raise a substantive issue on the content of the Draft EIR, no further response is warranted.

COMMENT NO 7-2

1.0 Summary

The project proposes the demolition of eight buildings and construction/operation of a single, approximately 304,344 square foot tilt-up light-industrial building with 10,066 square feet of office space and 294,278 square feet of warehouse space on an approximately 14 acre site. The building proposes 44 truck/trailer loading docks and the site provides 338 passenger car parking spaces and 79 truck/trailer parking spaces.

The following discretionary actions are necessary to implement the proposed project:

1. Approval of a Zoning change from (IG) General Industrial to (IL) Light Industrial.
2. CEQA Approval and certification of the EIR.
3. Site Plan Review for design review of the proposed building.
4. Demolition Permit to allow for the demolition of the existing buildings.

RESPONSE NO 7-2

This comment provides a summary of the proposed Project and discretionary actions needed to implement the proposed Project. Because the comment does not raise a substantive issue on the content of the Draft EIR, no further response is warranted.

COMMENT NO 7-3

2.0 Project Description

The EIR does not include a floor plan, detailed site plan, or a conceptual grading plan. The basic components of a Planning Application include a detailed site plan, floor plan, conceptual grading plan, written narrative, and detailed elevations. The site plan provided in the EIR has been edited to remove pertinent information from public view. For example, it does not provide any detailed information such as parking requirements, floor area ratio, or earthwork quantity notes. Additionally, the EIR nor any figures within it include information about the required cut and/or fill material during the grading phase. Providing the grading plan and earthwork quantity notes is vital as it is necessary to calculate the truck hauling trips due to soil import/export during the grading phase of construction. A revised EIR must be prepared to include wholly accurate and adequate floor plan, site plan, grading plan, and project narrative for public review.

RESPONSE NO 7-3

A conceptual site plan of the proposed Project is included as Figure 2-5, Conceptual Site Plan on page 2-9, within Chapter 2 Project Description of the Draft EIR. Elevations of the proposed Project are included as Figure 2-8: Proposed Project Renderings – West and South Elevations and Figure 2-9: Proposed Project Renderings – North and East Elevations on page 2-13 and 2-14.

As discussed on page 2-8, within Chapter 2 Project Description of the Draft EIR, the proposed Project would include 338 at-grade parking stalls and 79 truck parking stalls. Passenger vehicle parking would be situated in front of the proposed building, along Cherry Avenue, along the south side of the lot, and in the rear of the building in the northeast corner of the lot. As stated on page 2-6.1 within Chapter 2.0 Project Description of the Draft EIR, the NeoIndustrial Place Type allows for buildings up to 65 feet high and a floor area ratio (FAR) of between 0.50 and 1.00.

As stated on page 50 within Appendix B: Air Quality Impact Analysis of the Draft EIR, 10,000 cubic yards (CY) of soil export have been conservatively assumed.[1] Furthermore, CalEEMod accounted for 10,000 cubic yards (CY) of soil export during the grading phase of construction. Construction durations, phasing, equipment mix, and construction equipment assumptions are provided in Table 3-2, Construction Work Trip Assumptions and Table 3-3, Construction Duration, and Table 3-4 Construction Equipment Assumptions, contained within Appendix B: Air Quality Impact Analysis of the Draft EIR. Findings and conclusions of the Draft EIR are not affected. Revisions to the Draft EIR are not required.

[1] Urban Crossroads, *Cherry Avenue Industrial Building Air Quality Impact Analysis*. p.50.

COMMENT NO 7-4

4.4 Air Quality, 4.7 Energy, and 4.9 Greenhouse Gas Emissions

Please refer to attachments from SWAPE for a complete technical commentary and analysis.

The EIR does not include for analysis relevant environmental justice issues in reviewing potential impacts, including cumulative impacts from the proposed project. This is especially significant as the surrounding community is highly burdened by pollution. According to CalEnviroScreen 4.0[1], CalEPA's screening tool that ranks each census tract in the state for pollution and socioeconomic vulnerability, the proposed project's census tract (6037570502) ranks in the 98th percentile for overall pollution burden, indicating that it ranks amongst the worse environmental factors compared to the rest of the state overall. The proposed project's census tract and surrounding community, including residences to the west, bears the impact of multiple sources of pollution and is more polluted than average on several pollution indicators measured by CalEnviroScreen. For example, the project census tract ranks in the 83rd percentile for particulate matter (PM) 2.5 burden, the 65th percentile for diesel particulate matter, and the 53rd percentile for traffic impacts. All of these environmental factors are typically attributed to heavy truck activity in the area. The very small particles of diesel PM can reach deep into the lung, where they can contribute to a range of health problems. These include irritation to the eyes, throat and nose, heart and lung disease, and lung cancer[2].

The census tract also ranks in the 97th percentile for hazardous waste facility impacts. Hazardous waste generators and facilities contribute to the contamination of air, water and soil near waste generators and facilities can harm the environment as well as people[3].

Further, the census tract is a diverse community including 58% Hispanic, 5% African-American, and 21% Asian-American residents, whom are especially vulnerable to the impacts of pollution. The community has a high rate of low educational attainment, meaning 79% of the census tract residents over age 25 has not attained a high school diploma. The community also has a high rate of poverty, meaning 67% of the households in the census tract have a total income before taxes that is less than the poverty level. Income can affect health when people cannot afford healthy living and working conditions, nutritious food and necessary medical care[4]. Poor communities are often located in areas with high levels of pollution[5]. Poverty can cause stress that weakens the immune system and causes people to become ill from pollution[6]. Living in poverty is also an indication that residents may lack health insurance or access to medical care. Medical care is vital for this census tract as it ranks in the 89th percentile for incidence of cardiovascular disease and 91st percentile for incidence of asthma.

Additionally, the project census tract and census tracts adjacent to the project site (6037570100 (east), 6037570203 (north), 6037570501 (west), and 6037570602 (south)) are identified as SB 535 Disadvantaged Communities[7]. This indicates that cumulative impacts of development and environmental impacts in the immediate vicinity are disproportionately impacting this community. The negative environmental, health, and quality of life impacts resulting form a saturation of the warehousing and logistics industry in the community have become distinctly inequitable. A revised EIR must be prepared to include the specific analysis of each environmental impact on the Disadvantaged Community, including cumulative analysis and irreversible environmental effects.

Footnote 1: CalEnviroScreen 4.0 https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40

Footnote 2: OEHHA Diesel Particulate Matter https://oehha.ca.gov/calenviroscreen/indicator/diesel-particulatematter

Footnote 3: OEHHA Hazardous Waste Generators and Facilities, https://oehha.ca.gov/calenviroscreen/indicator/hazardous-waste-generators-and-facilities

Footnote 4: OEHHA Poverty https://oehha.ca.gov/calenviroscreen/indicator/poverty

Footnote 5: Ibid

Footnote 6: Ibid.

Footnote 7: OEHHA SB 535 Census Tracts https://oehha.ca.gov/calenviroscreen/sb535

RESPONSE NO 7-4

CEQA does not require consideration of potential implications to environmental justice or socioeconomics as a specific resource, further, environmental justice is not listed within the "Environmental Factors Potentially Affected" in Appendix G, Environmental Checklist Form, to the CEQA Guidelines. Furthermore, as discussed within the Draft EIR, the proposed Project has one significant and unavoidable impact related to VMT as analyzed in Section 4.18, Transportation of the Draft EIR. No other environmental impacts are considered significant and unavoidable. Therefore, even if the topic of environmental justice was a required topic within the "Environmental Factors Potentially Affected" in Appendix G, Environmental Checklist Form, there would not be impacts to local residents as a result of approval of the proposed Project. Therefore, there are no significant impacts to local residents as a result of approval of the proposed Project. Because the comment does not raise a substantive issue on the content of the Draft EIR, no further response is warranted.

COMMENT NO 7-5

The State of California lists three approved compliance modeling softwares[8] for non-residential buildings: CBECC-Com, EnergyPro, and IES VE. CalEEMod is not listed as an approved software. The CalEEMod modeling does not comply with the 2022 Building Energy Efficiency Standards and under-reports the project s [SIC] significant Energy impacts and fuel consumption to the public and decision makers. Since the EIR did not accurately or adequately model the energy impacts in compliance with Title 24, a finding of significance must be made. A revised EIR with modeling using one of the approved software types must be prepared and circulated for public review in order to adequately analyze the project s significant environmental impacts. This is vital as the EIR utilizes CalEEMod as a source in its methodology and analysis, which is clearly not an approved software.

Footnote 8: California Energy Commission 2022 Energy Code Compliance Software https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency-1

RESPONSE NO 7-5

The commenter is referencing post-construction Title 24 energy calculations that differ from the operational energy analysis required for CEQA. CEQA does not mandate that certain tools or modeling protocols be employed in environmental analysis such as is suggested by the commenter. CEQA requires that analyses be sufficient to provide decision-makers with information enabling them

to make decisions that intelligently account of environmental consequences of projects (CEQA Guidelines 15151. Standards of Significance).

With specific regard to the use of CalEEMod for the purposes of modeling energy consumption, the City has historically and successfully employed CalEEMod for this purpose. Further, the SCAQMD, the Responsible Agency for air quality considerations, sanctions use of CalEEMod to provide a "uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operational from a variety of land use projects."[2] Through the use of CalEEMod, SCAQMD integrates air quality and energy impact analyses. To ensure consistency of and accuracy of analyses in support of SCAQMD policies, the City has determined that CalEEMod is appropriate for CEQA modeling of both air quality impacts and energy consumption.

The energy modeling protocols cited by the commenter (CBECC-Com, EnergyPro, and IES VE) are used for the performance approach (energy budget) method for demonstrating compliance with the Title 24 Energy Standards. The analysis included within Section 4.7, Energy of the Draft EIR discloses the amount of energy that the proposed Project would require and is not intended or required to demonstrate compliance for Title 24 energy standard performance.

The energy modeling protocols identified in the comment provide modeling of building energy consumption only, whereas CalEEMod comprehensively and cohesively provides building energy consumption estimates, as well as establishes the basis for estimation of construction activity/construction equipment energy consumption, and mobile-source (vehicular) energy consumption. This latter category (vehicular energy consumption) comprises the majority of the proposed Project energy demand. In addition, the sources for the methodologies include studies commissioned by the California Energy Commission (CEC) and also utilize energy conservation standards subject to Title 24. CalEEMod User Guide Appendix D (Technical Source Documentation for Emissions Calculations) states the energy intensity estimates are based on a survey completed in 2019 with structures ranging from 1935 to 2015. The Appendix notes "default energy consumption estimates provided in CalEEMod based on the RASS are very conservative, overestimating expected energy use compared to what would be expected for new buildings subject to the latest Energy Code with more stringent energy efficiency measures." Therefore, the energy estimates in Section 4.7 Energy of the Draft EIR Appendix G, Energy Analysis are conservative. The energy modeling protocols offered by the commenter (which do not consider energy consumption attributable to construction activities or mobile sources) would vastly underestimate the proposed Project energy demands and proposed Project energy consumption.

Additionally, the Draft EIR discloses the proposed Project's electricity consumption, natural gas consumption, and transportation fuel consumption and determined that the proposed Project's energy consumption would not be inefficient or wasteful as the proposed Project will be required to comply with the Title 24 Nonresidential Building Energy Efficiency Standards and CALGreen standards published by the CEC, which contain stringent mandatory standards for mechanical systems, lighting (indoor and outdoor), and appliances to minimize energy use. Therefore, the proposed Project used the appropriate model to calculate and disclose the proposed Project's energy use, and also demonstrated that the proposed Project would be required to comply with 2022 Title 24 Building Energy Efficiency and CALGreen Standards. Findings and conclusions of the Draft

[2] SCAQMD. (2024). Air quality modeling for CEQA. Retrieved from https://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-modeling. (Accessed May 17, 2024).

EIR are not affected. Revisions to the Draft EIR are not required. As demonstrated, the comments submitted are incorrect.

COMMENT NO 7-6

4.12 Land Use and Planning

The EIR does not discuss or analyze the project's compliance with its General Plan land use designation of Neo-Industrial PlaceType[9]. Within the Land Use Element of the General Plan, the Neo-Industrial PlaceType provides several specifics, including those for the Neo-Industrial PlaceType designation within North Long Beach (applicable to the project site as shown in Map LU-16: Neo-Industrial PlaceType Map):

"The North Long Beach Neo-Industrial PlaceType areas do not offer the same opportunities for building reuse. In North Long Beach, Neo-Industrial uses do not include a residential or live/work component. Rather, Neo-Industrial uses are limited strictly to manufacturing and office uses with an allowance for retail sales and commercial businesses that support the primary Neo-Industrial endeavors. Here, Neo-Industrial businesses are required to use the office space as a buffer to adjacent residential uses, and manufacturing operations must be located away from residences."

Footnote 9:

https://www.longbeach.gov/globalassets/lbcd/medialibrary/documents/planning/advance/lueude/landuse-element-final-adopted-december-2019

RESPONSE NO 7-6

As stated on page 2-3 within Chapter 2.0 Project Description of the Draft EIR, the Land Use Element of the City of Long Beach General Plan (adopted 2019) designates the area of the proposed Project site and immediately surrounding land uses to the north, northeast, east, and southeast as Neo-Industrial (NI).

The NI Place Type, especially surrounding the proposed Project site, was created to infill heavy industrial use areas, no longer needed within the City, with lighter industrial uses such as warehousing. The infill of such sites includes the conversion of several petroleum production uses within the Uptown/North Long Beach area. As stated on page 2-3 within Chapter 2 Project Description of the Draft EIR, during the City's General Plan and Uptown Planning Land Use and Neighborhood Strategy (Uplan) update, a plan for Uptown/North Long Beach was completed that included the proposed Project site. In the plan, the City confirmed that warehousing, the fulfillment of products, and e-commerce were uses consistent with the NI Place Type.[3]

As discussed on page 2-10 within Chapter 2 Project Description of the Draft EIR, the City of Long Beach updated and adopted the Land Use Element of its General Plan in December 2019. The City is currently in the process of updating the zoning ordinance to reflect the new PlaceType land uses incorporated in the General Plan's Land Use Element. The proposed Project site is currently zoned (IG) General Industrial. As part of the proposed Project, the proposed Project will be rezoned to (IL) Light Industrial. Furthermore, as described in the City of Long Beach General Plan Land Use

[3] See October 6, 2022 Planning Commission meeting and subsequent City Council staff presentation. See also November 17, 2022 Planning Commission meeting approving industrial warehouse.

Element, the Neo-Industrial PlaceType allows various uses including light industrial, clean manufacturing and offices, in addition to commercial uses for creative business endeavors.[4] As demonstrated, the comment asserted is incorrect; the proposed Project is fully consistent with the City's General Plan and Zoning Code.

COMMENT NO 7-7

The EIR describes several "Tenant Use Options," including several different types of warehousing options. It is clear that the General Plan designation does not permit those uses in the North Long Beach area Neo-Industrial PlaceType, and strictly permits only manufacturing and office uses. The General Plan further states that, "The Neo-Industrial PlaceType is used as a buffer between existing industrial and residential neighborhoods. Where new developments are inserted in the Neo-Industrial PlaceType, office and commercial uses rather than industrial and manufacturing operations, should abut residential neighbors." Residential neighbors are located to the west from the project site, indicating that only office uses should face that direction.

RESPONSE NO 7-7

The City of Long Beach General Plan Land Use Element, the Neo-Industrial PlaceType allows various uses including light industrial, clean manufacturing and offices, in addition to commercial uses for creative business endeavors.[5] As stated on page 2-3 within Chapter 2 Project Description of the Draft EIR, the Land Use Element of the City of Long Beach General Plan (adopted 2019) designates the area of the Project site and immediately surrounding land uses to the north, northeast, east, and southeast as Neo- Industrial (NI). The NI Place Type, especially surrounding the proposed Project site, was created to infill heavy industrial use areas, no longer needed within the City, with lighter industrial uses such as warehousing.

The infill of such sites includes the conversion of several petroleum production uses within the Uptown/North Long Beach area. During the City's General Plan and Uptown Planning Land Use and Neighborhood Strategy (Uplan) update, a plan for Uptown/North Long Beach was completed that included the proposed Project site. In the plan, the City confirmed that warehousing, the fulfillment of products, and e-commerce were uses consistent with the NI Place Type. As discussed on page 2-10 within Chapter 2 Project Description of the Draft EIR, the City of Long Beach updated the Land Use Element of its General Plan in December 2019. The City is currently in the process of updating the zoning ordinance to reflect the new PlaceType land uses incorporated in the General Plan's Land Use Element. The proposed Project site is currently zoned (IG) General Industrial. As part of the proposed Project the proposed Project will be rezoned to (IL) Light Industrial. Findings and conclusions of the Draft EIR are not affected. Revisions to the Draft EIR are not required. As demonstrated, the comment asserted is incorrect; the proposed Project is fully consistent with the City's General Plan and Zoning Code.

[4] City of Long Beach, General Plan Land Use Element, https://www.longbeach.gov/globalassets/lbcd/media-library/documents/planning/advance/lueude/land-use-element-final-adopted-december-2019. (Accessed May 17, 2024).

[5] City of Long Beach, General Plan Land Use Element, https://www.longbeach.gov/globalassets/lbcd/media-library/documents/planning/advance/lueude/land-use-element-final-adopted-december-2019. (Accessed May 17, 2024).

COMMENT NO 7-8

Additionally, the General Plan states that, "Where new development is adjacent to residential uses, buildings must step down to match permitted residential building heights. Development intensity must also be graduated from lower intensity near residential neighbors to moderate intensity near wholly industrial uses." The proposed building is 51 feet in height and is not proposed to step down to match permitted residential building heights. Overall, the EIR has not considered the above listed items described for the Neo-Industrial PlaceType and a revised EIR must be prepared in order to provide an adequate and accurate environmental analysis. The project does not comply with the Neo-Industrial PlaceType requirements (including those specified for the North Long Beach area) and a finding of significance must be made as part of a revised EIR. Additionally, all areas of analysis in the EIR must be updated to remove statements and justifications for LTS impacts that the project is consistent with the General Plan.

RESPONSE NO 7-8

As stated on page 4.2-4 through 4.2-5 within Section 4.2 Aesthetics of the Draft EIR, the proposed building would reach a maximum of 51 feet, less than the 65 feet height provided for the General Industrial (IG) zoning district. Therefore, the proposed Project would be at an appropriate scale for a 14.16 acre parcel. Upon approval of a zone change from IG to Light Industrial (IL), the Project site would provide a range of opportunities for building types. As indicated in the LBMC Chapter 21.33 Industrial Districts, the IL District may allow low-scale structures or modern complexes in park-like settings. The examples listed in LBMC Chapter 21.33 are intended to present a range of opportunities. Findings and conclusions of the Draft EIR are not affected. Revisions to the Draft EIR are not required.

COMMENT NO 7-9

Table 4.12-2: Project Compatibility with SCAG 2020-2045 RTP/SCS Connect SoCal Goals finds that the project is consistent with the goals of Connect SoCal, resulting in less than significant impacts. In finding consistency with SCAG's goals, the EIR does not provide any meaningful evidence to support this conclusion, in violation of CEQA's requirements for meaningful disclosure. Due to errors in modeling and modeling without supporting evidence, as noted throughout this comment letter and attachments, and the EIR's determination that the project will have significant and unavoidable impacts to Transportation, the proposed project is directly inconsistent with Goal 5 to reduce greenhouse gas emissions and improve air quality, Goal 6 to support healthy and equitable communities, and Goal 7 to adapt to a changing climate. The EIR must be revised to include finding of significance due to inconsistency with the RTP/SCS.

RESPONSE NO 7-9

The consistency analysis of the proposed Project with the SCAG 2020-2045 RTP/SCS Connect SoCal Goals is provided in Table 4.12-2, Section 4.12 Land Use and Planning of the Draft EIR. The analysis contained within Section 4.12 Land Use and Planning of the Draft EIR land use specifically describes how the proposed Project is consistent with the 2020-2045 RTP/SCS Goals 5, 6, and 7.

As described in the Draft EIR, 2020-2045 RTP/SCS Goal 5 aims to reduce greenhouse gas (GHG) emissions and improve air quality. The proposed Project is consistent with Goal 5 because the reduction of energy use, improvement of air quality, and promotion of more environmentally sustainable development would be encouraged through the existing and proposed alternative transportation modes, sustainable building and landscaping design techniques (including LEED Certification), and other best management practices for structures and non-structures. Further, the proposed Project site is directly served by bus routes that operate on Cherry Avenue and South Street, located approximately 0.1 mile south of the proposed Project site and is served by Long Beach Transit Bus Routes 21 and 23. The proposed Project would include improvements necessary to facilitate pedestrian usage including a flashing beacon-crosswalk lighting system, bus shelter upgrade, sidewalk, curb-and-gutter, and landscaping improvements on Cherry Avenue, along the proposed Project's frontage, consistent with the City's standards

2020-2045 RTP/SCS Goal 6 aims to support healthy and equitable communities. The proposed Project is consistent with Goal 6 as it would be constructed to comply with the current building codes, State and federal requirements, including Green Building Standards. The proposed Project would better serve the needs of the community by providing new employment opportunities. Additionally, the proposed Project would develop a state-of-the-art speculative light industrial building employing sustainable building practices consistent with applicable local and state policies, including California Green Building Standards. The proposed building would incorporate roof-top solar panels. Utilization of solar power would help offset consumption of electricity that may be produced using fossil fuels. Reduction of heat islands is beneficial to the community by reducing air pollution and heat-related health impacts.

2020-2045 RTP/SCS Goal 7 aims to adapt to a changing climate and support an integrated regional development pattern and transportation network. The proposed Project would develop a state-of-the-art speculative light industrial building employing sustainable building practices consistent with applicable local and state policies, including California Green Building Standards. Furthermore, the proposed Project is consistent with Goal 7 as it is situated to take advantage of existing transportation infrastructure, with efficient access to nearby transit, roadways, highways and the Ports of Los Angeles and Long Beach consistent with the 2020-2045 RTP/SCS and consistent with current building codes, State and federal requirements including Green Building Standards. Findings and conclusions of the Draft EIR are not affected. Revisions to the Draft EIR are not required.

COMMENT NO 7-10

4.18 Transportation

The EIR has not adequately analyzed the project's potential to substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses; or the project's potential to result in inadequate emergency access. There are no exhibits adequately depicting the available maneuvering and queueing space for trucks/trailers at the intersection of the project driveways and the adjacent streets. There are also no exhibits adequately depicting the onsite turning radius available for trucks maneuvering throughout the site. This does not comply with CEQA's requirements for adequate informational documents and meaningful disclosure (CEQA § 15121 and 21003(b)). The EIR states that, "All circulation improvements would be constructed as approved by the City s Public Works Department." A similar statement is made regarding emergency access, "LBFD would review the Project for access requirements concerning minimum roadway

width, access roads, fire lanes, signage, access devices and gates, and access walkways, among other requirements, which would enhance emergency access to the Project site," and sight distance, "Additionally, sight distance at each project access point should be reviewed with respect to standard California Department of Transportation (Caltrans) and City of Long Beach sight distance standards at the time of preparation of final grading, landscape, and street improvement plan." Deferring this environmental analysis required by CEQA to the construction permitting phase is improper mitigation and does not comply with CEQA's requirement for meaningful disclosure and adequate informational documents. A revised EIR must be prepared to include truck turning templates overlaid on the Site Plan for review, analysis, and comment by the public and decision makers in order to provide an adequate and accurate environmental analysis.

RESPONSE NO 7-10

The commenter asserts without substantiation that: "The EIR has not adequately analyzed the project's potential to substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses; or the project's potential to result in inadequate emergency access." This topic is adequately and appropriately addressed on pages 4.18-10 – 4.18-11, within Section 4.18 Transportation of the Draft EIR. The proposed Project proposes conventional warehouse development on a previously-developed site in an urban context, with immediate access to fully improved urban roadways. The proposed Project does not propose or require designs or operational elements that would somehow result in dangerous conditions or that would impair emergency access. The proposed Project proposes site access via two driveways on Cherry Avenue. Passenger vehicles would access and depart the proposed Project site from Cherry Avenue by way of two driveways located at the southwestern and northwestern corners of the proposed Project site. Truck access would be restricted to the driveway located at the southwestern corner of the proposed Project site. This driveway provides the closest access to the truck dock doors, which would be situated entirely along the southern side of the proposed Building. The proposed Project driveways and internal drive aisles would be constructed pursuant to City's design standards and subject to review by the Long Beach Fire Department (LBFD).

As noted on page 4.18-11, within Section 4.18 Transportation of the Draft EIR, the Project would implement a construction Traffic Management Plan (TMP) that would limit potential traffic conflicts. The TMP includes recommended improvements to enable safe access to the Project site. The Project would also be required to implement MM TRA-1 and TRA-2, which aim to further promote public transit and active transportation use.

The proposed Project also includes improvements to enable safe access to the Project. Recommended improvements include:

- **Recommendation 1 – Cherry Avenue & Driveway 1 (#6):** The following improvements are necessary to accommodate site access:

o Project to stripe a southbound left turn lane with a minimum of 100-feet of storage.

o Project to install a stop control on the westbound approach and construct a shared left-right turn lane (Project driveway).

- **Recommendation 2 – Cherry Avenue & 59th Street/Driveway 2 (#8):** The following improvements are necessary to accommodate site access:

o Project to stripe a southbound left turn lane with a minimum of 100-feet of storage.

o Project to install a stop control on the westbound approach and construct a shared left-through-right turn lane (Project driveway).

• **Recommendation 3 – Cherry Avenue:** Cherry Avenue is a north-south oriented roadway located on the Project's western boundary. The proposed Project would construct sidewalk, curb-and-gutter, and landscaping improvements on Cherry Avenue, along the Project's frontage, consistent with the City's standards.

The proposed building is consistent with the City's General Plan land use designation and zoning for the Project site. All circulation improvements would be constructed as approved by the City's Public Works Department. Additionally, sight distance at each project access point should be reviewed with respect to standard California Department of Transportation (Caltrans) and City of Long Beach sight distance standards at the time of preparation of final grading, landscape, and street improvement plans. The Draft EIR appropriately cites and acknowledges standards, regulations, and design review processes adopted by the City that would ensure the proposed Project in its final design configuration would conform with all applicable design and access requirements.

The commenter next states that the Draft EIR must include "exhibits adequately depicting the available maneuvering and queueing space for trucks/trailers at the intersection of the project driveways and the adjacent streets; and "exhibits adequately depicting the onsite turning radius available for trucks maneuvering throughout the site." The City has determined the proposed Project design concepts respond to circulation and access requirements of the City and all affected agencies. As provided at CEQA Guidelines Section 15204, "CEQA does not require a lead agency to conduct every test or perform all research, study, and experimentation recommended or demanded by commenters, such as the information requested by the commenter. When responding to comments, lead agencies need only respond to significant environmental issues and do not need to provide all information requested by reviewers, as long as a good faith effort at full disclosure is made in the EIR." Here, the City has made such a good faith effort at full disclosure of the proposed Project's circulation design and access considerations. The analysis is supported by the City's professional experience with similar developments and is substantiated by quantified analysis provided by the proposed Project traffic engineering experts. Findings and conclusions of the Draft EIR are not affected. Revisions to the Draft EIR are not required.

COMMENT NO 7-11

Further, the EIR has underreported the quantity VMT generated by the proposed project operations. The operational nature of industrial/warehouse uses involves high rates of truck/trailer/delivery van VMT due to traveling from large import hubs to regional distribution centers to smaller industrial parks and then to their final delivery destinations. Once employees arrive at work at the proposed project, they will conduct their jobs by driving delivery vans across the region as part of the daily operations as a fulfillment center, which will drastically increase project-generated VMT. The project's truck/trailer and delivery van activity is unable to utilize public transit or active transportation and it is misleading to the public and decision makers to exclude this activity from VMT analysis. The project's total operational VMT generated is not consistent with the significance threshold and legislative intent of SB 743 to reduce greenhouse gas emissions by reducing VMT. A revised EIR must be prepared to reflect a quantified VMT analysis that includes all truck/trailer and delivery van activity.

RESPONSE NO 7-11

The commenter states that the Draft EIR has underreported the Project "quantity of VMT generated." Under CCR § 15064.3. (b) (4) . . . "A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled, and may revise those estimates to reflect professional judgment based on substantial evidence." Trip generation estimates and VMT analyses presented in the Draft EIR have been completed consistent with the City's VMT methodologies and protocols.

The City of Long Beach TIA Guidelines (Guidelines) identifies the Southern California Associations of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) trip-based travel demand model (SCAG travel demand model) as the appropriate model for conducting VMT analyses. The Guidelines comply with and support the intent and purpose of SB 743. The proposed Project's potential VMT impacts is presented within Section 4.18, Transportation of the Draft EIR and Appendix M, Traffic Assessment of the Draft EIR.

The Guidelines state that the appropriate metric for industrial land use projects (such as the Project considered in the DEIR) is VMT per employee – calculated as the total home-based work (HBW) attractions divided by the employment of the project. Daily HBW VMT per employee represents the commute portion of the daily trips. The Guidelines also establish a significance threshold for industrial projects (such as the proposed Project considered in the Draft EIR) that are consistent with the City's General Plan Land Use Element as 'no net change in VMT per employee.' The Draft EIR analysis of VMT impacts conforms to applicable Guidelines provisions.

In addition to providing an analysis consistent with the City's guidelines, the Draft EIR also provided a conservative analysis by calculating the proposed Project's total VMT per the service population. The total VMT is comprised of employee trips as well as truck trips. The truck trip length is based on StreetLight™ Data's Truck Volume Metrics for medium heavy-duty trucks (MDT) (2 and 3 axle trucks) and heavy heavy-duty trucks (HDT) (4+ axle trucks). Truck travel characteristics were collected from an existing industrial area located along the I-710 Freeway based on its proximity to the proposed Project and anticipated operational characteristics of the area similar to the Project. Data collected for this survey includes MDT and HDT that originated, ended or passed through the surveyed area over the most recent consecutive 12-month period available from StreetLight™ Data for truck travel volume metrics. Based on traffic monitoring data collected for the most recent 12-month period of truck travel volume metrics available from StreetLight Data, an MDT trip length of 19.5 and a HDT trip length of 48.4 was used in the analysis. The inclusion of truck trips, which is not required per City and State guidelines, in the VMT analysis triggers the significant impact. If trucks were excluded in the VMT analysis, the proposed Project's VMT would have been less than significant.

As noted previously, CEQA does not require a lead agency to conduct every test or perform all research, study, and experimentation recommended or demanded by commenters [such as the analysis requested by the commenter], as long as a good faith effort at full disclosure is made in the EIR. Here, the Lead Agency has made such an effort at full disclosure of the proposed Project's VMT impacts. The analysis is supported by the City's professional experience with similar developments and is substantiated by quantified analysis provided by the proposed Project traffic engineering experts. Findings and conclusions of the Draft EIR are not affected. Revisions to the Draft EIR are not required.

COMMENT NO 7-12

5.0 Alternatives

The EIR is required to evaluate a reasonable range of alternatives to the proposed project which will avoid or substantially lessen any of the significant effects of the project (CEQA § 15126.6.) The alternatives chosen for analysis include the CEQA required "No Project" alternative and four others. However, not all of the proposed alternatives comply with the requirements of the Neo- Industrial PlaceType within the North Long Beach area. The EIR does not evaluate a reasonable range of alternatives as only one alternative (Alternative 3: Adaptive Reuse of Existing Buildings – Office) is permitted by the Neo-Industrial PlaceType within the North Long Beach area. The EIR must be revised to include analysis of a reasonable range of alternatives and foster informed decision making (CEQA § 15126.6). This could include alternatives such as development of the site with a mixed-use project that provides affordable housing and local-serving commercial uses that may reduce VMT, GHG emissions, and improve Air Quality.

RESPONSE NO 7-12

As discussed on page 2-10 within Chapter 2 Project Description of the Draft EIR, the City of Long Beach updated and adopted the Land Use Element of its General Plan in December 2019. The City is currently in the process of updating the zoning ordinance to reflect the new PlaceType land uses incorporated in the General Plan's Land Use Element. The proposed Project site is currently zoned (IG) General Industrial. As part of the proposed Project the Project will be rezoned to (IL) Light Industrial.

Chapter 5, Alternatives of the Draft EIR evaluates five alternatives to the proposed Project. These alternatives include:

- Alternative 1: No Build/No Project,
- Alternative 2: Adaptive Reuse of Existing Buildings – Industrial,
- Alternative 3: Adaptive Reuse of Existing Buildings – Office,
- Alternative 4: Reduced Project, and
- Alternative 5: Outdoor Truck/Trailer Storage.

As described in the City of Long Beach General Plan Land Use Element, the Neo-Industrial PlaceType allows various uses including light industrial, clean manufacturing and offices, in addition to commercial uses for creative business endeavors.[6] As stated on page 5-17, within Chapter 5 Alternatives of the Draft EIR, the No Project Alternative would be consistent with the proposed Project site's NI Placetype designation.

As stated on page 5-38, within Chapter 5 Alternatives of the Draft EIR, Alternative 2 would be consistent with the proposed Project site's NI PlaceType designation, as the proposed Project would replace the existing heavy industrial use with a light industrial use. As stated on page 5-60, within Chapter 5 Alternatives of the Draft EIR, Alternative 3 would be consistent with the NI PlaceType designation, as the proposed Project would replace the existing heavy industrial use with an office use. As stated on page 5-81, within Chapter 5 Alternatives of the Draft EIR, Alternative 4 would

[6] City of Long Beach, General Plan Land Use Element, https://www.longbeach.gov/globalassets/lbcd/media-library/documents/planning/advance/lueude/land-use-element-final-adopted-december-2019. (Accessed May 17, 2024).

reduce the proposed Project size and would be consistent with the NI PlaceType and designation. Lastly, Alternative 5 would repurpose the site as an outdoor parking are for trucks and truck trailers, which would be consistent with the City's General Plan, zoning code, and other applicable land use plans, policies or regulations. Therefore, all five alternatives would be consistent with the NI PlaceType and no additional alternatives would be required. Because the comment does not raise a substantive issue on the content of the Draft EIR, no further response is warranted.

ATTACHMENT A: COMMENTS ON THE 5910 CHERRY AVENUE INDUSTRIAL BUILDING PROJECT

SWAPE

Matt Hagemann, P.G, C.Hg.

Paul E. Rosenfeld, PhD

COMMENT NO. 7-13

We have reviewed the March 2024 Draft Environmental Impact Report ("DEIR") for the 5910 Cherry Avenue Industrial Building Project ("Project") located in the City of Long Beach ("City"). The Project proposes to demolish an existing industrial development and office facility and construct a 304,344-square-foot ("SF") industrial warehouse and 417 parking stalls on the 14.16-acre site.

Our review concludes that the DEIR 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 may be underestimated and inadequately addressed. A revised Environmental Impact Report ("EIR") should be prepared to adequately assess and mitigate the potential air quality, health risk, and greenhouse gas impacts that the project may have on the environment.

RESPONSE NO. 7-13

This comment provides a general introduction to the comments raised in this letter. Responses to the comments contained in this letter are provided below in Responses to Comments 7-14 through 7-30. Because the comment does not raise a substantive issue on the content of the Draft EIR, no further response is warranted.

COMMENT NO. 7-14

Air Quality

Failure to Provide Complete CalEEMod Output Files

Land use development projects under the California Environmental Quality Act ("CEQA") typically evaluate air quality impacts and calculate potential criteria air pollutant emissions using the California Emissions Estimator Model ("CalEEMod").[1] CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but CEQA requires that such 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 used in calculating the Project's air pollutant emissions and demonstrate which default values are changed. Justifications are provided for the selected values.

According to the Air Quality Impact Analysis, included as Appendix B to the DEIR, CalEEMod Version 2022.1 is relied upon to estimate Project emissions (DEIR, p. 4.4-26). However, this poses a problem, as the currently available version of CalEEMod 2022.1 is described as a "soft release" which fails to provide complete output files.[2] Specifically, the "User Changes to Default Data" table no longer provides the quantitative counterparts to the changes to the default values (see excerpt below) (Appendix B, pp. 168, 169):

8. User Changes to Default Data

Screen	Justification
Land Use	Total Project area is 14.16 acres
Construction: Construction Phases	Construction schedule based on information provided by the Applicant.
Construction: Off-Road Equipment	Equipment based on information provided by the Client
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Demolition, Site Preparation, Grading, and Building Construction Hauling trip length during grading adjusted to the average distance (56.9 mi) for material hauled from the Project site to Chiquita Canyon Landfill and Sunshine Canyon Landfill.
Construction: Architectural Coatings	Rule 1113

However, previous CalEEMod Versions, such as 2020.4.0, include the specific numeric changes to the model's default values (see example excerpt below):

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	230.00	167.00
tblConstructionPhase	PhaseEndDate	11/22/2023	8/25/2023
tblConstructionPhase	PhaseEndDate	9/27/2023	6/30/2023
tblConstructionPhase	PhaseEndDate	10/25/2023	7/28/2023
tblConstructionPhase	PhaseStartDate	10/26/2023	7/29/2023
tblConstructionPhase	PhaseStartDate	9/28/2023	7/1/2023
tblLandUse	LandUseSquareFeet	160,000.00	160,371.00
tblLandUse	LandUseSquareFeet	119,000.00	41,155.00
tblLandUse	LotAcreage	3.67	3.68
tblLandUse	LotAcreage	2.73	2.74

The output files associated with CalEEMod Version 2022.1 fail to present the exact parameters used to calculate Project emissions. To remedy this issue, the DEIR should have provided access to the model's ".JSON" output files, which allow third parties to review the model's revised input parameters.[3] Without access to the complete output files, including the specific numeric changes to the default values, we cannot verify that the DEIR's air modeling and subsequent analysis is an accurate reflection of the proposed Project. As a result, a revised EIR should be prepared to include an updated air quality analysis that correctly provides the complete output files for CalEEMod Version 2022.1, or includes an updated air model using an older release of CalEEMod.[4]

Footnote 1: "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, available at: https://www.aqmd.gov/caleemod/user's-guide.

Footnote 2: "CalEEMod California Emissions Estimator Model Soft Release." California Air Pollution Control Officers Association (CAPCOA), 2022, available at: https://caleemod.com/.

Footnote 3: "Video Tutorials for CalEEMod Version 2022.1." California Air Pollution Control Officers Association (CAPCOA), May 2022, available at: https://www.caleemod.com/tutorials.

Footnote 4: "CalEEMod Version 2020.4.0." California Air Pollution Control Officers Association (CAPCOA), May 2021, available at: http://www.aqmd.gov/caleemod/download-model.

RESPONSE NO. 7-14

The commenter discovered the latest CalEEMod shares input and deviations from model defaults differently than the 2020.4 CalEEMod program. However, air pollutant emissions are provided within Appendix B, Air Quality Impact Analysis, Appendices 3.1. 3.2, 3.3, 3.4, Appendix C, Health Risk Assessment (HRA), Appendices 2.1, 2.2, 2.3, 2.4; and Appendix I, Greenhouse Gas Analysis (GHGA), Appendices 3.1. 3.2, 3.3 of the Draft EIR. According to the CalEEMod User's Guide, CalEEMod allows for changes to be made to the default model and for the user to provide justification for the change.[7] The justification for any change to the default model must be supported by substantial evidence under CEQA and cannot be based on unsubstantiated data. The model inputs and analysis assumptions are provided in detail within Draft EIR Appendix A, Section 3. Furthermore, CalEEMod 2022 outputs summarize changes to the model defaults in Section 8 (User Changes to Default Data) (see Draft EIR Appendix B and Appendix C).

All of the proposed Project air quality modeling has been conducted in conformance with SCAQMD requirements and applicable CalEEMod protocols. SCAQMD (the CEQA Responsible Agency for air quality considerations) has been provided all air quality modeling input and outputs.

Findings and conclusions of the Draft EIR are not affected. Revisions to the Draft EIR are not required.

COMMENT NO. 7-15

Unsubstantiated Input Parameters Used to Estimate Project Emissions

As previously discussed, the DEIR relies on CalEEMod Version 2022.1 to estimate the Project's air quality emissions and fails to provide the complete output files required to adequately evaluate model's analysis (p. 4.4-26). While the DEIR lists seven land use options for tenant uses, the South Coast Air Quality Management District ("SCAQMD") states that "CEQA requires the use of 'conservative analysis' to afford 'fullest possible protection of the environment.'" Therefore, we relied on Tenant Use Option 5, which is the most conservative proposed model including 25% of manufacturing space and 75% of warehouse space.[5] Regardless, when reviewing the Project's CalEEMod output files, we were able to identify several model inputs that are inconsistent with information disclosed in the DEIR. The Project's construction and operational emissions consequently may be underestimated. A revised EIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that construction and operation of the Project will have on local and regional air quality.

Footnote 5: "Warehouse Truck Trip Study Data Results and Usage" Presentation. SCAQMD Inland Empire Logistics Council, June 2014, available at: http://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-triprate-study-for-air-quality-analysis/final-ielc_6-19-2014.pdf?sfvrsn=2

[7] CalEEMod Model 2022.1 User Guide, https://www.caleemod.com/documents/user-guide/01_User%20Guide.pdf. (Accessed May 17, 2024).

RESPONSE NO. 7-15

The commenter makes a general statement that the Draft EIR CalEEMod emissions modeling is inaccurate citing "model inputs that are inconsistent with information disclosed in the DEIR." Responses to specific comments are provided below in Responses 7-16, 7-17, and 7-18. No further response is required.

COMMENT NO 7-16

Unsubstantiated Changes to Architectural Coating Emission Factors

Review of the CalEEMod output files demonstrates that the "Cherry Avenue Warehouse (Construction)" model includes changes to the default architectural coating emission factors (see excerpt below) (Appendix B, pp. 169).

8. User Changes to Default Data

Screen	Justification
Land Use	Total Project area is 14.16 acres
Construction: Construction Phases	Construction schedule based on information provided by the Applicant.
Construction: Off-Road Equipment	Equipment based on information provided by the Client
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Demolition, Site Preparation, Grading, and Building Construction Hauling trip length during grading adjusted to the average distance (56.9 mi) for material hauled from the Project site to Chiquita Canyon Landfill and Sunshine Canyon Landfill.
Construction: Architectural Coatings	Rule 1113

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[6] As demonstrated above in the "User Changes to Default Data" table, the justification provided for these changes is:

> "Rule 1113" (Appendix B, pp. 169).

The CalEEMod output files list SCAQMD Rule 1113 as a justification for the changes made to architectural coatings values in the model. However, the model's reductions to the architectural coating emission factors remain unsubstantiated for two reasons.

First, 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 volatile organic compound ("VOC") limits (grams of VOC per liter of coating) for 57 different coating categories.[7] 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 DEIR fails 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 coating emission factors.

Second, as previously discussed, the output files for CalEEMod 2022.1 do not present the numeric changes to any model defaults. Upon further review of the output files, Table 5.5 contains the only mention of architectural coatings (see excerpt below) (Appendix B, pp. 160):

However, as demonstrated above, Table 5.5 only provides the square footage of area to be coated. Since the output files fail to demonstrate the architectural coating emission factors that the model relies on, we cannot verify that the values included in the model are accurate. As previously stated, the DEIR should have provided access to the model's ".JSON" output files, which allow third parties to review the model's revised input parameters.[8]

These unsubstantiated reductions present an issue, as CalEEMod uses the architectural coating emission factors to calculate the Project's reactive VOC emissions.[9] By including unsubstantiated reductions to the default architectural coating emission factors, the model may underestimate the Project's construction-related VOC emissions and should not be relied upon to determine Project significance.

Footnote 6: "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, available at: https://www.aqmd.gov/caleemod/user's-guide, p. 1, 14.

Footnote 7: "SCAQMD Rule 1113 Advisory Notice." SCAQMD, February 2016, available at: http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/r1113.pdf?sfvrsn=24, p. 1113-14, Table of Standards1.

Footnote 8: "Video Tutorials for CalEEMod Version 2022.1." California Air Pollution Control Officers Association (CAPCOA), May 2022, available at: https://www.caleemod.com/tutorials.

Footnote 9: "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, available at: https://www.aqmd.gov/caleemod/user's-guide, p. 35, 40.

RESPONSE NO. 7-16

The commenter asserts that the Draft EIR Air Quality emissions modeling of VOC emission is inaccurate as the specific architectural coating emission factors were not included. However, VOC emissions modeling has been performed consistent with SCAQMD guidance and applicable CalEEMod protocols. The default in CalEEMod for VOC architectural coatings is 100 g/L. The SCAQMD's Rule 1113 limits the amount of VOC for building envelope coatings to 50 g/L. The CalEEMod was changed to 50 g/L. Findings and conclusions of the Draft EIR are not affected. Revisions to the Draft EIR are not required.

COMMMENT NO. 7-17

Underestimated Operational Vehicle Trips

According to the Traffic Analyses ("TA") provided as Appendix M to the DEIR, the Project is expected to generate 756 daily vehicle trips for Tenant Use Option 5 (see excerpt below) (pp. 18, Table A-1).

Alternative 5: 25% Manufacturing & 75% Warehousing							
Passenger Cars	65	18	83	24	64	88	582
2-Axle Trucks	1	0	1	1	1	2	30
3-Axle Trucks	1	1	2	1	1	2	36
4+-Axle Trucks	2	2	4	3	3	6	108
Trucks	4	3	7	5	5	10	174
Total	**69**	**21**	**90**	**29**	**69**	**98**	**756**
Variance	**-88**	**-29**	**-117**	**-41**	**-86**	**-127**	**-692**

The Project's model should have included trip rates that reflect the estimated number of average daily vehicle trips. However, review of the CalEEMod output files demonstrates that the "Cherry Avenue Warehouse (Operations) Option 5" model includes only 648 weekday total daily vehicle trips (see excerpt below) (Appendix B, pp. 106).[10]

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Refrigerated Warehouse-No Rail	418	36.4	167	119,593	4,598	401	1,839	1,315,524
User Defined Industrial	230	20.0	92.0	65,804	8,740	761	3,496	2,500,549
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

The "Cherry Avenue Warehouse (Operations) Option 5" total weekday vehicle trips are each underestimated by 108-trips.[11] Consequently, the trip rates inputted into the model are underestimated and inconsistent with the information provided by the TA.

These inconsistencies present an issue, as CalEEMod uses the operational vehicle trip rates to calculate the emissions associated with the operational on-road vehicles.[12] By including underestimated operational daily vehicle trips, the model underestimates the Project's mobile-source operational emissions and should not be relied upon to determine Project significance.

Footnote 10: Calculated: 418 "Refrigerated Warehouse-No Rail" daily trips + 230 "User Defined Industrial" daily trips = 648 total daily weekday trips.

Footnote 11: Calculated: 756 proposed daily weekday trips – 648 modeled daily weekday, Saturday, and Sunday trips = 108 underestimated daily weekday trips.

Footnote 12: "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, available at: https://www.aqmd.gov/caleemod/user's-guide, p. 36.

RESPONSE NO. 7-17

The commenter asserts that the emissions modeling within Appendix B, Air Quality Impact Analysis of the Draft EIR is inaccurate based on discrepancy in vehicle trip rate inputs. Commenter's references in this regard are unclear as page 106 of Appendix B, Air Quality Impact Analysis of the Draft EIR does not include any information from CalEEMod. A further review of Appendix B identifies that it correctly models the 648 weekday total trips associated with Option 5. A review of page 4 within Appendix M, Traffic Analysis of the Draft EIR reveals that the commenter appears to be referencing the totals for Option 6. See the following excerpt from Appendix M:

TABLE 2 CONT'D: TENANT USE OPTION TOTAL VMT

Tenant Use Option 5	Vehicle Trips	Vehicle Trip Length	VMT
Automobile	418	11	4,598
MDT	106	19.5	2,067
HDT	124	48.4	6,002
Total Truck	230	-	8,069
Total	**648**	**-**	**12,667**
Tenant Use Option 6	Vehicle Trips	Vehicle Trip Length	VMT
Automobile	582	11	6,402
MDT	66	19.5	1,287
HDT	108	48.4	5,227
Total Truck	174	-	6,514
Total	**756**	**-**	**12,916**

As demonstrated, the comment asserted is incorrect. The findings and conclusions of the Draft EIR are not affected. No revisions to the Draft EIR are required.

COMMENT NO. 7-18

Unsubstantiated Changes to Operational Fleet Mix Values

Review of the CalEEMod output files demonstrates that the "Cherry Avenue Warehouse (Operations) Option 5" model includes changes to the default operational vehicle fleet mix percentages (see excerpt below) (Appendix B, 369).

8. User Changes to Default Data

Screen	Justification
Land Use	Total Project area is 14.16 acres
Operations: Vehicle Data	Trip characteristics based on information provided in the Traffic analysis
Operations: Fleet Mix	Passenger Car Mix estimated based on the CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, & MCY). Truck Mix based on information in the Traffic analysis
Operations: Energy Use	Project energy demand will be offset with solar. Project will not utilize natural gas.
Operations: Refrigerants	As of 1 January 2022, new commercial refrigeration equipment may not use refrigerants with a GWP of 150 or greater. Further, R-404A (the CalEEMod default) is unacceptable for new supermarket and cold storage systems as of 1 January 2019 and 2023, respectively.

As previously stated, the CalEEMod User's Guide requires any changes to model defaults be justified.[13] As demonstrated above in the "User Changes to Default Data" table, the justification provided for these changes is:

"Passenger Car Mix estimated based on the CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, & MCY). Truck Mix based on information in the Traffic analysis" (Appendix B, 369).

The DEIR includes the following Project fleet mix tables for passenger cars and trucks, respectively (see excerpts below) (Appendix B; p. 55, 56; Table 3-6, 3-7).

TABLE 3-6: PASSENGER CAR FLEET MIX

Scenario	Land Use	% Vehicle Type				
		LDA	LDT1	LDT2	MDV	MCY
Option 1	Manufacturing	53.61%	4.65%	24.60%	14.87%	2.26%
Option 2	General Light Industrial					
Option 3	Warehouse					
Option 4	High-Cube Fulfillment (Non-Sort)					
Option 5	High-Cube Cold Storage					
Option 6	Manufacturing					
	Warehouse					
Option 7	Manufacturing					
	High-Cube Transload					

Note: The Project-specific passenger car fleet mix used in this analysis is based on a proportional split utilizing the default CalEEMod percentages assigned to LDA, LDT1, LDT2, and MDV vehicle types.

TABLE 3-7: TRUCK FLEET MIX

Scenario	Land Use	% Vehicle Type			
		LHDT1	LHDT2	MHDT	HHDT
Option 1	Manufacturing	13.92%	3.48%	20.29%	62.32%
Option 2	General Light Industrial	14.36%	3.59%	20.51%	61.54%
Option 3	Warehouse	13.77%	3.44%	20.43%	62.37%
Option 4	High-Cube Fulfillment (Non-Sort)	13.34%	3.33%	22.22%	61.11%
Option 5	High-Cube Cold Storage	27.83%	6.95%	11.30%	53.91%
Option 6	Manufacturing	13.34%	3.33%	22.22%	61.11%
	Warehouse	13.92%	3.48%	20.29%	62.32%
Option 7	Manufacturing	13.34%	3.33%	22.22%	61.11%
	High-Cube Transload	15.39%	3.84%	19.23%	61.54%

Note: Project-specific truck fleet mix is based on the number of trips generated by each truck type (LHDT1, LHDT2, MHDT, and HHDT) relative to the total number of truck trips.

However, the changes to the model's operational fleet mix values remain unsubstantiated. As previously discussed, the output files for CalEEMod 2022.1 do not present the numeric changes to any model defaults. Upon further review of the output files, changes to fleet mix percentages are not mentioned outside of the "User Changes to Default Data" table. Until the DEIR verifies the breakdown of heavy- heavy duty ("HHD"), medium-heavy duty ("MHD"), light-heavy duty ("LHD1, LDH2"), trucks used by the Project, we cannot verify that the values included in the model are accurate.[14]

These unsubstantiated changes present an issue, as CalEEMod uses operational vehicle fleet mix percentages to calculate the Project's operational emissions associated with on-road vehicles.[15] By including several unsubstantiated changes to the default operational vehicle fleet mix percentages, the model may underestimate the Project's mobile-source operational emissions and should not be relied upon to determine Project significance.

Footnote 13: "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, available at: https://www.aqmd.gov/caleemod/user's-guide, p. 1, 14.

Footnote 14: "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, available at: https://www.aqmd.gov/caleemod/user's-guide, p. 38.

Footnote 15: "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, available at: https://www.aqmd.gov/caleemod/user's-guide, p. 36.

RESPONSE NO. 7-18

The commenter asserts that the emissions modeling within Appendix B, Air Quality Impact Analysis of the Draft EIR is inaccurate based on "fleet mix." Appendix B, Air Quality Impact Analysis Table 3-6: Passenger Car Fleet Mix and Table 3-7: Truck Fleet Mix show the input tables for the CalEEMod modeling. As discussed in Appendix B of the Draft EIR, the fleet mix data is substantiated by the Cherry Avenue Industrial Building Traffic Analysis (Draft EIR Appendix M). All modeling inputs are consistent with applicable CalEEMod parameters and SCAQMD guidance. Moreover, the Draft EIR considers seven tenant options for the Project uses, providing a wide range of potential fleet mixes. As discussed on pages 4.4-34 through 4.4-38, Section 4.4 Air Quality and on pages 59 through 63 within Appendix B, Air Quality Analysis of the Draft EIR, none of the modeled tenant occupancies and associated fleet mixes would result in potentially significant air pollutant emissions levels. Findings and conclusions of the Draft EIR are not affected. Revisions to the Draft EIR are not required.

COMMENT NO. 7-19

Disproportionate Health Risk Impacts of Warehouses on Surrounding Communities

Upon review of the DEIR and associated documents, we have determined that the development of the proposed Project may contribute to the disproportionate health risk impacts that warehouses pose to 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."[16]

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.[17] 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

facilities."[18] 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.'"[19]

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.

Footnote 16: "South Coast AQMD Governing Board Adopts Warehouse Indirect Source Rule." SCAQMD, May 2021, available at: http://www.aqmd.gov/docs/default-source/news-archive/2021/board-adopts-waisr-may7-2021.pdf?sfvrsn=9.

Footnote 17: "Southern California warehouse boom a huge source of pollution. Regulators are fighting back." Los Angeles Times, May 2021, available at: https://www.latimes.com/california/story/2021-05-05/air-quality-officials-targetwarehouses-bid-to-curb-health-damaging-truck-pollution.

Footnote 18: "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

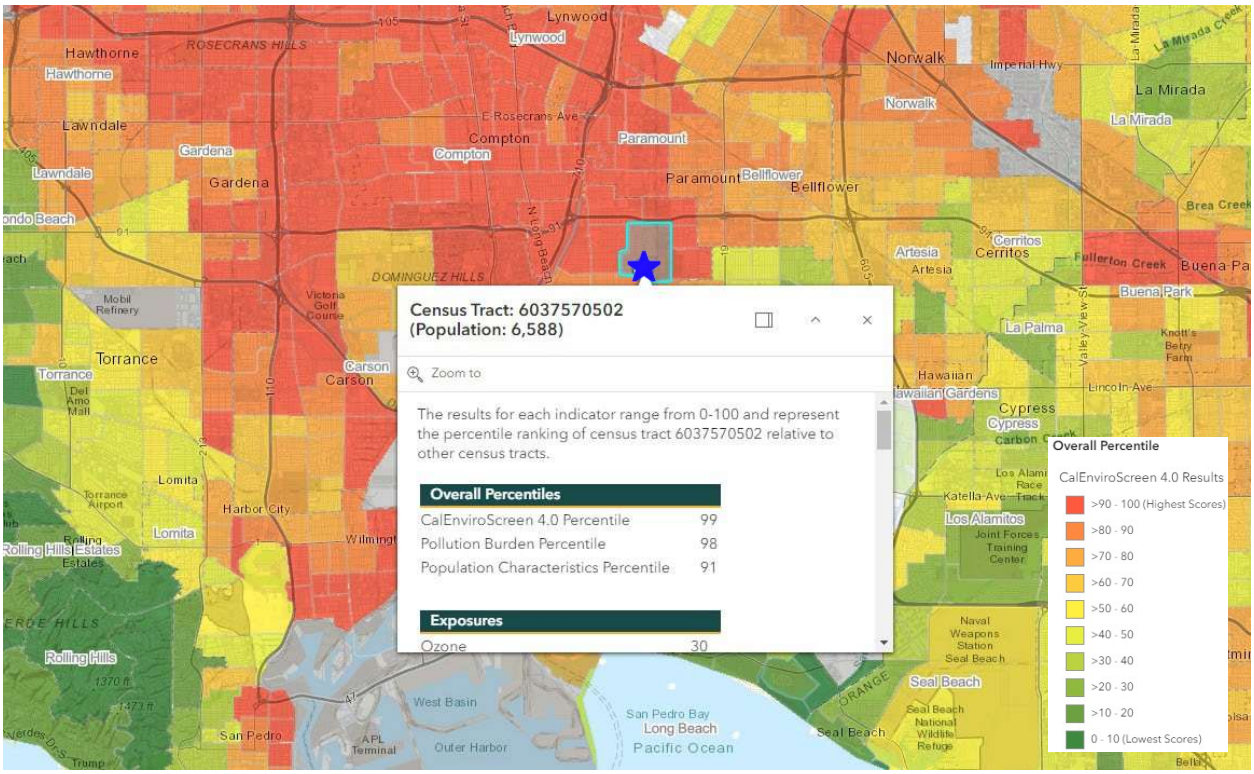
Footnote 19: "Warehouses, Pollution, and Social Disparities: An analytical view of the logistics industry's impacts on environmental justice communities across Southern California." People's Collective for Environmental Justice, April 2021, available at: https://earthjustice.org/sites/default/files/files/warehouse_research_report_4.15.2021.pdf, p. 4.

RESPONSE NO. 7-19

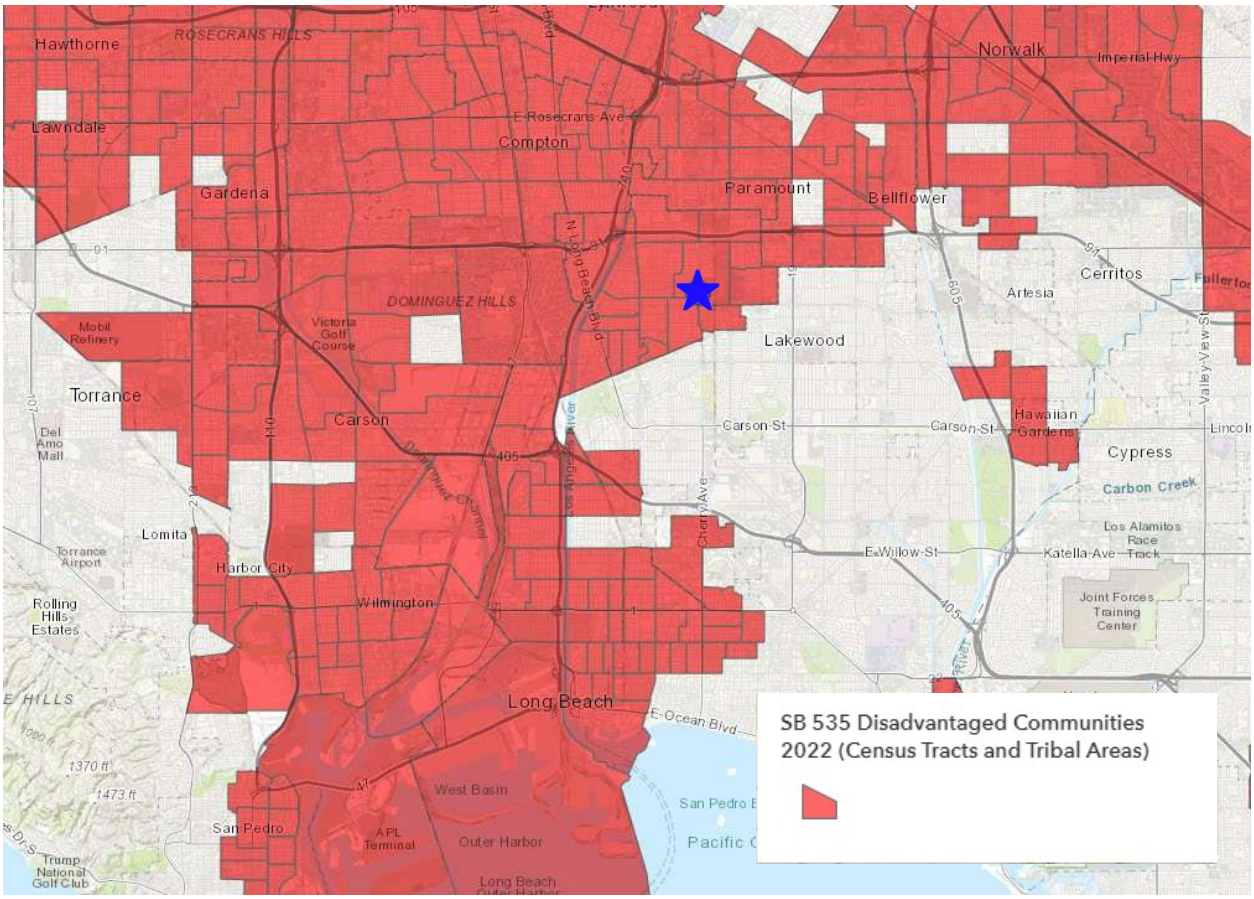
The commenter presents general information about disadvantaged and minority populations being impacted by commerce centers across the South Coast Air Basin and claims that the proposed Project will disproportionately impact these populations. As stated on pages 4.4-39 through 4.4-44, within Section 4.4 Air Quality of the Draft EIR and Appendix C, Health Risk Assessment of the Draft EIR, the proposed Project would not result in any potentially significant health risk impacts. HRA modeling and analysis was prepared consistently with guidance from CARB, SCAQMD, OEHHA, CalEEMod, and City of Long Beach. Findings and conclusions of the Draft EIR are not affected. The Draft EIR and supporting technical analyses fully and accurately substantiate that the proposed Project would not result in any significant health risk impacts. Findings and conclusions of the Draft EIR are not affected. Revisions to the Draft EIR are not required.

COMMENT NO. 7-20

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 98th percentile of most polluted census tracts in the State (see excerpt below).[20]

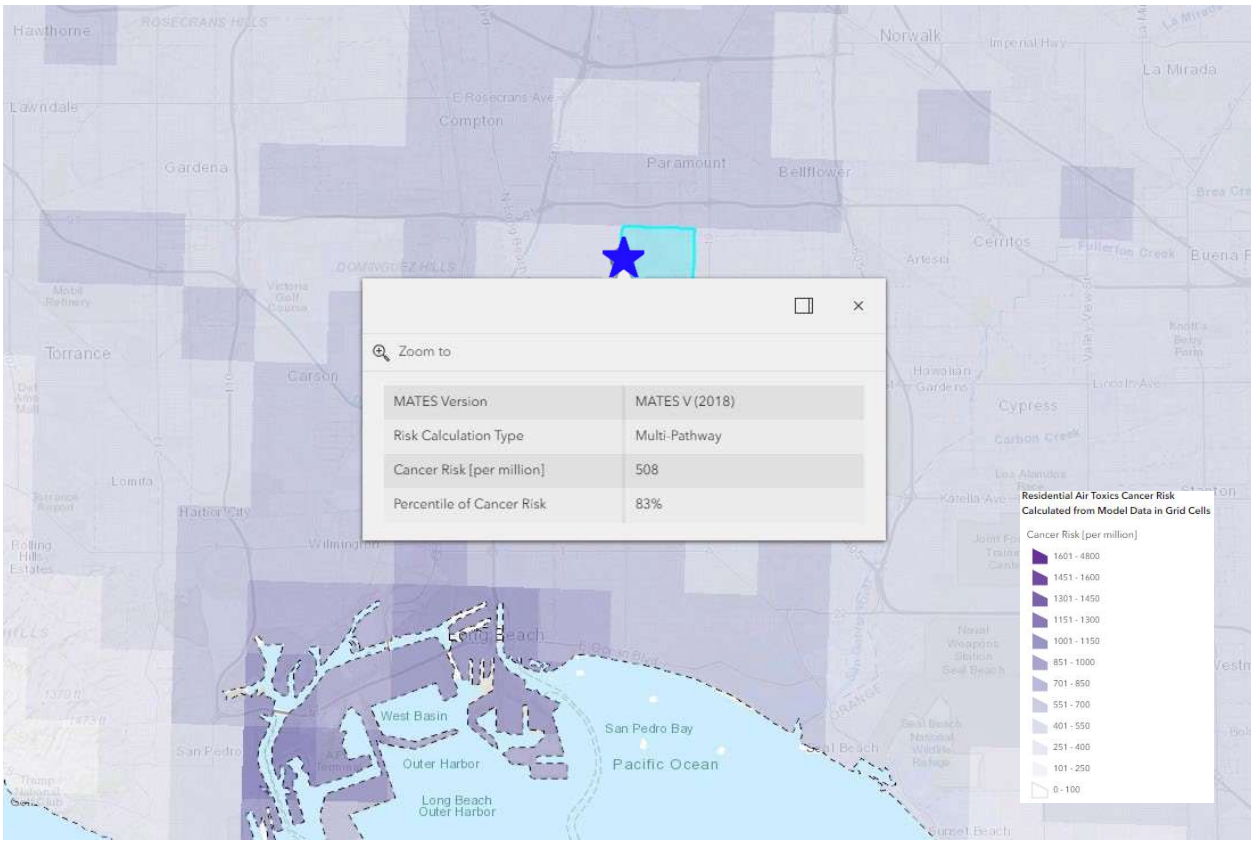


According to CalEnviroScreen's SB 535 Disadvantaged Communities Map, the Project site is located in a designated disadvantaged community (see excerpt below).[21]



SB 535 provides funding for development projects that provide a benefit to disadvantaged communities. CalEPA has been given the responsibility for identifying those communities based on "geographic, socioeconomic, public health, and environmental hazard criteria."[22] As the Project site is located in a designated disadvantaged community, and Project's census tract already exhibits a high cancer risk, development of the proposed Project would contribute to the disproportionate impact warehouses are posing to the health conditions of nearby residents.

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 83th percentile of highest cancer risks in the South Coast Air Basin, with a cancer risk of 508 in one million (see excerpt below).[23]



Therefore, development of the proposed warehouse would contribute to the disproportionate impact warehouses are posing to 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.[24] 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.[25] 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."[26]

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."[27]

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.[28] 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.

Footnote 20: "CalEnviroScreen 4.0." California Office of Environmental Health Hazard Assessment (OEHHA), October 2021, available at: https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40.

Footnote 21: "SB 535 Disadvantaged Communities (2022 Update)." California Environmental Protection Agency, available at: https://experience.arcgis.com/experience/1c21c53da8de48f1b946f3402fbae55c/page/SB-535-Disadvantaged-Communities/

Footnote 22: "Final Designation of Disadvantaged Communities." California Environmental Protection Agency, available at: https://calepa.ca.gov/wp-content/uploads/sites/6/2022/05/Updated-Disadvantaged-Communities-Designation-DAC-May-2022-Eng.a.hp_-1.pdf?emrc=e05e10.

Footnote 23: "Residential Air Toxics Cancer Risk Calculated from Model Data in Grid Cells." MATES V, 2018, available at: https://experience.arcgis.com/experience/79d3b6304912414bb21ebdde80100b23/page/Main-Page/?views=Clicktabs-for-other-data%2CGridded-Cancer-Risk; see also: "MATES V Multiple Air Toxics Exposure Study." SCAQMD, available at: http://www.aqmd.gov/home/air-quality/air-quality-studies/health-studies/mates-v.

Footnote 24: "State of the Air 2022." American Lung Association, April 2022, available at: https://www.lung.org/research/sota/key-findings/most-polluted-places.

Footnote 25: "High Ozone Days." American Lung Association, 2022, available at: https://www.lung.org/research/sota/city-rankings/states/california.

Footnote 26: "Health Effects of Ozone Pollution." U.S. EPA, May 2021, available at: https://www.epa.gov/ground-level-ozonepollution/health-effects-ozone-pollution.

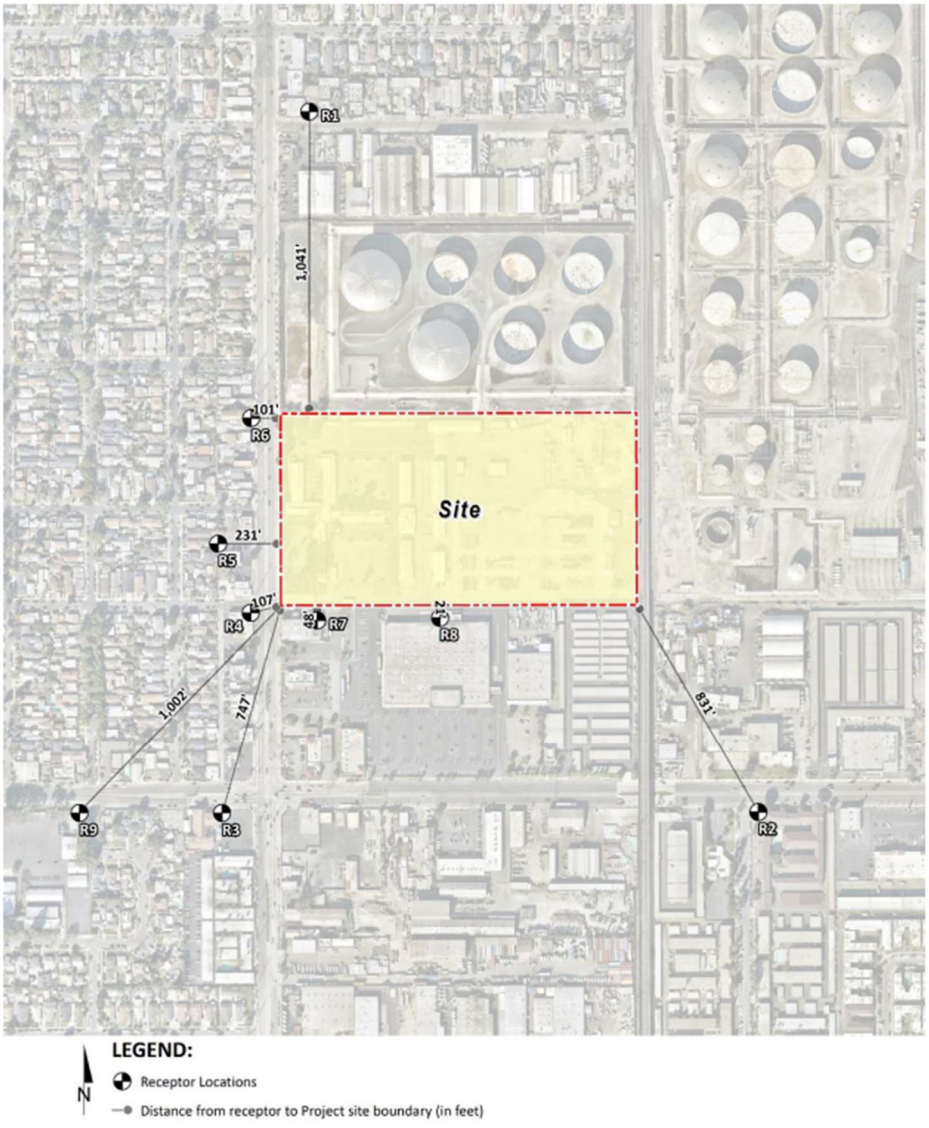
Footnote 27: "Children and Air Pollution." California Air Resources Board (CARB), available at: https://ww2.arb.ca.gov/resources/documents/children-and-air-pollution.

Footnote 28: "Air pollution puts children at higher risk of disease in adulthood, according to Stanford researchers and others." Stanford, February 2021, available at: https://news.stanford.edu/2021/02/22/air-pollution-impacts-childrenshealth/.

RESPONSE NO. 7-20

This comment is noted and will be provided to the decision makers for review and consideration. CEQA does not require consideration of potential implications to environmental justice or socioeconomics as a specific resource, further, environmental justice is not listed within the "Environmental Factors Potentially Affected" in Appendix G, Environmental Checklist Form, to the CEQA Guidelines. Furthermore, Section 4.4 Air Quality of the Draft EIR, states that emissions during peak construction activity will not exceed the SCAQMD's localized significance thresholds at the maximally exposed sensitive land use (Location R6). The closest sensitive receptor would be Location R6, which represents the existing residence at 5916 Gardenia Avenue, located approximately 101 feet west of the proposed Project site. All other area receptors would be exposed to a lesser concentration and consequently experience a lesser impact. Similarly, as stated on pages 4.4-39 through 4.4-42, during proposed Project operations, none of the peak day localized emissions would exceed SCAQMD significance thresholds for sensitive land use Location R6. Respective receptor figures are located in Appendix C, Section 2.7 within the Draft EIR.

EXHIBIT 2-E: RECEPTOR LOCATIONS



The 30-year risk calculation used in the Draft EIR includes child risk adjustments (age sensitivity factors) and the 30-year exposure starts at the 3rd trimester (i.e., a worst-case scenario). Worker receptors have a 25-year exposure duration (and eight-hour per day breathing rates) and school child exposure is nine years. As mentioned previously, per SCAQMD and OEHHA guidance, the HRA calculations include age sensitive factors that account for the increased vulnerability of younger age groups. However, the shorter exposure durations for students would result in lower risk levels compared to the analysis that was used in the Draft EIR. The approach in the Draft EIR and HRA is conservative and disclosed the worst case scenario because shorter exposure durations of students would have resulted in lower calculated risk. Therefore, Hart Elementary School would be exposed to a lesser concentration of emission and impacts related to air quality would be less than significant. See Response to Comment 6-21. As seen in the technical study provided by Urban Crossroads, Appendix C, Tables ES-1,ES-2, and ES-3 on page 4,5,6; cancer rates have reduced over the course of 30 years indicating the SCAQMD guidance has improved air quality while economic growth continues. Because the comment does not raise a substantive issue on the content of the Draft EIR, no further response is warranted.

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

Scenario	Time Period	Location	Maximum Lifetime Cancer Risk (Risk per Million)	Significance Threshold (Risk per Million)	Exceeds Significance Threshold
Tenant Use Option 1 / Tenant Use Option 5	1.03 Year Exposure	Maximum Exposed Sensitive Receptor (Location R6)	3.38	10	NO
	1.03 Year Exposure	Maximum Exposed Worker Receptor (Location R8)	0.25	10	NO
	1.03 Year Exposure	Maximum Exposed Individual School Child (Location R9)	0.02	10	NO
Scenario	**Time Period**	**Location**	**Maximum Hazard Index**	**Significance Threshold**	**Exceeds Significance Threshold**
Tenant Use Option 1 / Tenant Use Option 5	Annual Average	Maximum Exposed Sensitive Receptor	<0.01	1.0	NO
	Annual Average	Maximum Exposed Worker Receptor (Location R8)	<0.01	1.0	NO
	Annual Average	Maximum Exposed Individual School Child (Location R9)	<0.01	1.0	NO

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

Scenario	Time Period	Location	Maximum Lifetime Cancer Risk (Risk per Million)	Significance Threshold (Risk per Million)	Exceeds Significance Threshold
Tenant Use Option 1	30 Year Exposure	Maximum Exposed Sensitive Receptor (Location R6)	1.06	10	NO
	25 Year Exposure	Maximum Exposed Worker Receptor (Location R8)	0.33	10	NO
	9 Year Exposure	Maximum Exposed Individual School Child (Location R6)	0.03	10	NO
Tenant Use Option 5	30 Year Exposure	Maximum Exposed Sensitive Receptor (Location R6)	7.58	10	NO
	25 Year Exposure	Maximum Exposed Worker Receptor (Location R8)	5.29	10	NO
	9 Year Exposure	Maximum Exposed Individual School Child (Location R9)	0.31	10	NO
Scenario	**Time Period**	**Location**	**Maximum Hazard Index**	**Significance Threshold**	**Exceeds Significance Threshold**
Tenant Use Option 1	Annual Average	Maximum Exposed Sensitive Receptor (Location R6)	<0.01	1.0	NO
	Annual Average	Maximum Exposed Worker Receptor (Location R8)	<0.01	1.0	NO
	Annual Average	Maximum Exposed Individual School Child (Location R6)	<0.01	1.0	NO
Tenant Use Option 5	Annual Average	Maximum Exposed Sensitive Receptor (Location R6)	<0.01	1.0	NO
	Annual Average	Maximum Exposed Worker Receptor (Location R8)	<0.01	1.0	NO
	Annual Average	Maximum Exposed Individual School Child (Location R9)	<0.01	1.0	NO

TABLE ES-3: SUMMARY OF CONSTRUCTION AND OPERATIONAL CANCER AND NON-CANCER RISKS

Scenario	Time Period	Location	Maximum Lifetime Cancer Risk (Risk per Million)	Significance Threshold (Risk per Million)	Exceeds Significance Threshold
Tenant Use Option 1	30 Year Exposure	Maximum Exposed Sensitive Receptor (Location R6)	4.16	10	NO
Tenant Use Option 5	30 Year Exposure	Maximum Exposed Sensitive Receptor (Location R6)	8.97	10	NO
Scenario	**Time Period**	**Location**	**Maximum Hazard Index**	**Significance Threshold**	**Exceeds Significance Threshold**
Tenant Use Option 1	Annual Average	Maximum Exposed Sensitive Receptor (Location R6)	<0.01	1.0	NO
Tenant Use Option 5	Annual Average	Maximum Exposed Sensitive Receptor (Location R6)	<0.01	1.0	NO

COMMENT NO. 7-21

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.[29] Regarding the proposed Project itself, the DEIR states:

> "The nearest school is Harte Elementary School (Location R9), located approximately 1,002 feet southwest of the Project site." (p. 4.4-43).

As discussed, Harte Elementary School is located approximately 1,002 feet, or 0.19 miles, from the Project site. Therefore, this Project may pose 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 contribute to the detrimental short-term and long-term health impacts that warehouses pose on local children if approved.

Footnote 29: "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.

RESPONSE NO. 7-21

As discussed on page 4.4-4.3, within Section 4.4 Air Quality of the Draft EIR, the nearest school is Hart Elementary School, located approximately 1,002 feet southwest of the proposed Project site. The Draft EIR considered the potential impact of proposed Project-generated air pollutant emissions at local sensitive receptors as part of the air quality analysis. As stated on page 4.4-39, Section 4.4 Air Quality of the Draft EIR, emissions during peak construction activity will not exceed the SCAQMD's localized significance thresholds at the maximally exposed sensitive land use (Location R6). The closest sensitive receptor would be Location R6, which represents the existing residence at 5916 Gardenia Avenue, located approximately 101 feet west of the proposed Project site. All other area receptors would be exposed to a lesser concentration and consequently experience a lesser impact. Similarly, as stated on pages 4.4-39 through 4.4-42, within Section 4,4 Air Quality of the Draft EIR, during proposes Project operations, none of the peak day localized emissions would exceed SCAQMD significance thresholds for sensitive land use Location R6.

The 30-year risk calculation used in the Draft EIR includes child risk adjustments (age sensitivity factors) and the 30-year exposure starts at the 3rd trimester (i.e., a worst-case scenario). Worker receptors have a 25-year exposure duration (and eight-hour per day breathing rates) and school child exposure is nine years. As mentioned previously, per SCAQMD and OEHHA guidance, the HRA calculations include age sensitive factors that account for the increased vulnerability of younger age groups. However, the shorter exposure durations for students would result in lower risk levels compared to the analysis that was used in the Draft EIR. The approach in the Draft EIR and HRA is conservative and disclosed the worst case scenario because shorter exposure durations of students would have resulted in lower calculated risk. Therefore, Hart Elementary School would be exposed to a lesser concentration of emission and impacts related to air quality would be less than significant. Findings and conclusions of the Draft EIR are not affected. Revisions to the Draft EIR are not required.

COMMENT NO. 7-22

A revised EIR should be prepared to evaluate the proposed Project's contribution to the disproportionate impacts that warehouses are posing on the community adjacent to the Project site. The EIR should include an analysis of the impact on children and people of color who live and attend school in the surrounding area. Finally, 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 EIR should also 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.

RESPONSE NO. 7-22

As discussed on page 4.4-29, within Section 4.4 Air Quality, of the Draft EIR a health risk assessment for the proposed Project was prepared in accordance with SCAQMD's Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis. Utilizing CalEEMod, the health risk assessment calculates DPM emissions for construction related activity for 270 total days of construction activity, based on the assumed mix of construction equipment and construction-related hauling activity used for the air quality analysis. The analysis also accounts for the remediation and removal of VOC impacted soil on the proposed Project site. More details on the health risk assessment are provided in Appendix C. As discussed on page 4.4-45 within Section 4.4 Air Quality, of the Draft EIR, Projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant. Therefore, the health risk assessment is in accordance with the SCAQMD guidance no further health risk assessment is warranted. Findings and conclusions of the Draft EIR are not affected. Revisions to the Draft EIR are not required.

COMMENT NO. 7-23

Diesel Particulate Matter Emissions Inadequately Evaluated

The DEIR concludes that the proposed Project would result in a less-than-significant health risk impact based on a quantified construction and operational HRA, as detailed in the Mobile Health Risk Assessment ("HRA Report"), provided as Appendix C to the DEIR. Specifically, the DEIR estimates that the maximum cancer risk posed to nearby, existing residential sensitive receptors associated with construction and operation would be 8.97 in one million, which would not exceed the SCAQMD significance threshold of 10 in one million (see excerpt below) (p. 6, Table ES-3).

TABLE ES-3: SUMMARY OF CONSTRUCTION AND OPERATIONAL CANCER AND NON-CANCER RISKS

Scenario	Time Period	Location	Maximum Lifetime Cancer Risk (Risk per Million)	Significance Threshold (Risk per Million)	Exceeds Significance Threshold
Tenant Use Option 1	30 Year Exposure	Maximum Exposed Sensitive Receptor (Location R6)	4.16	10	NO
Tenant Use Option 5	30 Year Exposure	Maximum Exposed Sensitive Receptor (Location R6)	8.97	10	NO
Scenario	**Time Period**	**Location**	**Maximum Hazard Index**	**Significance Threshold**	**Exceeds Significance Threshold**
Tenant Use Option 1	Annual Average	Maximum Exposed Sensitive Receptor (Location R6)	<0.01	1.0	NO
Tenant Use Option 5	Annual Average	Maximum Exposed Sensitive Receptor (Location R6)	<0.01	1.0	NO

RESPONSE NO. 7-23

The commenter recognizes the Draft EIR conclusion that the proposed Project would result in less-than-significant health risks impacts. Commenter acknowledgement of the Draft EIR conclusions regarding Project health risk impacts is noted. No further response is required and no revisions to the Draft EIR are necessary.

COMMENT NO. 7-24

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

First, the DEIR's HRAs are unreliable, as they rely upon emissions estimates from a flawed air model, as discussed above in the section titled "Unsubstantiated Input Parameters Used to Estimate Project Emissions." As such, the HRAs are based on potentially underestimated DPM concentrations to calculate the health risk associated with Project construction. As a result, the DEIR's HRAs and resulting cancer risk should not be relied upon to determine Project significance.

RESPONSE NO. 7-24

See Response No.7-15 above. Findings and conclusions of the Draft EIR are not affected. Revisions to the Draft EIR are not required.

COMMENT NO. 7-25

Second, the DEIR's operational HRA underestimates the Fraction of Time At Home ("FAH") values for the third trimester, infant, and child receptors. Specifically, the HRA Report utilizes an 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) (Appendix C, p. 27).

TABLE 2-8: EXPOSURE ASSUMPTIONS FOR INDIVIDUAL CANCER RISK (30 YEAR RESIDENTIAL)

Age	Daily Breathing Rate (L/kg-day)	Age Specific Factor	Exposure Duration (years)	Fraction of Time at Home	Exposure Frequency (days/year)	Exposure Time (hours/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."[30]

Per SCAQMD guidance, the HRA Report should have used an FAH of 1 for the third trimester, infant, and child receptors. By relying on incorrect FAH values, the DEIR underestimates the cancer risk posed to nearby, existing sensitive receptors as a result of the Project operation. A revised HRA should be prepared that accurately accounts for FAH values, and consequently assesses the health risk impacts the Project poses to nearby sensitive receptors.

Footnote 30: "Risk Assessment Procedures." SCAQMD, August 2017, available at: http://www.aqmd.gov/docs/defaultsource/rule-book/Proposed-Rules/1401/riskassessmentprocedures_2017_080717.pdf, p. 7.

RESPONSE NO. 7-25

As discussed on page 4.4-42 within Section 4.4 Air Quality, of the Draft EIR, all proposed Project HRA modeling conforms with SCAQMD's Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis. All modeling inputs are consistent with applicable SCAQMD and OEHHA guidance.

It should be noted that SCAQMD's guidelines cited by the commenter apply specifically to HRAs performed under Rules 1401, 1401.1, and 212, which are applicable to permitting of stationary sources. The proposed Project is not a stationary source and the guidelines cited in the comment are not applicable here. The HRA utilizes FAH values consistent with OEHHA's Risk Assessment Guidelines, as indicated on Table 8-4, page 8-5 of the 2015 OEHHA Risk Assessment Guidelines.

Therefore, the HRA appropriately accounted for exposure to children. The analysis considers a conservative scenario in which a child is born at the start of the proposed Project construction and exposed to construction-related emissions, and then exposed to the proposed Project operational emissions for the remainder of the 30-year exposure duration. The analysis also analyzes a worst-case operational scenario in which a child is exposed to the proposed Project operational emissions from the third trimester through the first 30 years of life. These scenarios conservatively assume that emissions will remain static throughout the life of the proposed Project and do not account for future emission reductions that would occur as more stringent emission standards and regulations are implemented.

As demonstrated, the comment is incorrect. The Draft EIR appropriately concludes that the proposed Project would result in or contribute to any potentially significant health risk impacts. Findings and conclusions of the Draft EIR are not affected. No revisions to the DEIR are required.

COMMENT NO. 7-26

Greenhouse Gas

Failure to Adequately Evaluate Greenhouse Gas Impacts

The DEIR estimates that the Tenant Use Option 5 for the Project would generate net annual greenhouse gas ("GHG") emissions of 5,748.81 metric tons of carbon dioxide equivalents per year ("MT CO_2e/year") (see excerpt below) (p. 61, Table 3-11).

TABLE 3-11: PROJECT GHG EMISSIONS – TENANT USE OPTION 5

Emission Source	Emissions (MT/yr)				
	CO_2	CH_4	N_2O	R	Total CO_2e
Annual construction-related emissions amortized over 30 years	42.08	0.00	0.00	0.02	42.90
Mobile Source	3,346.00	0.13	0.42	5.31	3,479.00
Area Source	6.17	0	0	0	6.19
Stationary Source	34.30	0	0	0	34.40
Water	98.10	2.30	0.06	0	172.00
Waste	25.50	2.55	0	0	89.30
Refrigeration	0	0	0	51.40	51.40
TRU Source					1,826.24
Cargo Handling Equipment					47.38
Project CO_2e (All Sources)	5,748.81				
Existing	*944.67*				
Total CO_2e (All Sources)	4,804.14				

Source: CalEEMod output, See Appendix 3.3 for detailed model outputs.

The DEIR relies on a qualitative analysis of GHG emissions, concluding:

"The CAP Checklist will be included in the respective Project or plan conditions of approval. Therefore, as the Project would be in conformance with the CAP, as evidenced by the CalEEMod model outputs summarized in Impact GHG-1 and the CAP Checklist included in Appendix I, the proposed Project would be consistent with applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions. Impacts are considered less than significant" (p. 4.9- 27).

As demonstrated above, the DEIR claims that since the Project would be consistent with the Long Beach Climate Action Plan ("CAP"), the Project would result in a less-than-significant GHG impact. However, the DEIR's analysis, as well as the subsequent less-than-significant impact conclusion, is incorrect, as the DEIR fails to compare the Project's GHG emissions to a quantitative threshold whatsoever.

In an effort to quantitatively evaluate the Project's GHG emissions, we compared the Project's GHG emissions, as provided above by the DEIR, to the SCAQMD interim bright-line threshold of 3,000 MT CO2e/year for the year 2020.[31] The guidance that provided the 3,000 MT CO2e/year threshold,

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 and required California to reduce GHG emissions to 1990 levels by 2020.[32]

The DEIR's CalEEMod output files disclose the Project's emissions for Tenant Use Option 5, which include approximately 5,748.81 MT CO2e/year of annual construction and operational emissions (sum of area-, energy-, mobile-, waste-, and water-related emissions and amortized construction-related emissions) (See Table Below).

DEIR Annual Greenhouse Gas Emissions

Project Phase	Proposed Project ($MT CO_2e$/year)
Total Net Annual GHG Emissions	**5,748.81**
SCAQMD Bright-Line Threshold	3,000
Exceeds?	***Yes***

As demonstrated above, the Project's estimated annual GHG emissions exceed the SCAQMD threshold of 3,000 MT CO2e/year, resulting in a significant impact.

Footnote 31: "Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #15." SCAQMD, September2010, available at: http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqasignificance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf, p. 2.

Footnote 32: HEALTH & SAFETY CODE 38550, available at: https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=HSC&sectionNum=38550.

RESPONSE NO. 7-26

The commenter is challenging the City's CAAP itself, which was adopted by the City in August 2022 (Draft EIR page 4.9-12). As discussed in CEQA Guidelines Section 15064.4(a) ". . . A lead agency shall have discretion to determine, in the context of a particular project, whether to: (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use; or (2) Rely on a qualitative analysis or performance-based standards." As provided for at CEQA Guidelines Section 15064.4(a), the Lead Agency determined that for the Draft EIR analysis, consistency with the City Climate Action and Adaptation Plan (City CAAP) is the appropriate basis for determining significance of GHG emissions impacts on the environment. The City CAAP includes a baseline emissions inventory and projects future emissions, identifies a community-wide reduction target, identifies strategies and measures to meet the reduction target, monitors the effectiveness of reduction measures, and was adopted in a public process subject to environmental review.

The CAAP was not challenged and the statute of limitations for such a challenge is well past. Moreover, and as explained above, consistency with a qualified climate action plan to support a less than significant impact on climate change is endorsed by the expert air district (SCAQMD). SCAQMD reviewed the CEQA document and did not provide any comments on the GHG analysis. As indicated on page 4.9-12 within Section 4.9 Greenhouse Gas Emissions of the Draft EIR, the City CAAP is consistent with the requirements of CEQA Guidelines Section 15183 and comprises a qualified GHG reduction plan.

In addition, the SCAQMD interim bright-line threshold of 3,000 MTCO2e per year was guidance from a 2008 draft working group meeting. The threshold was not adopted by the SCAQMD. The SCAQMD Governing Board, on December 5, 2008, did adopt a 10,000 MTCO2e per year threshold for industrial projects where SCAQMD is the lead agency. The City has determined this screening threshold is not applicable to the proposed development as SCAQMD is not the lead agency.

As substantiated in the Draft EIR, the proposed Project is consistent with the City CAAP. The City CAAP is a qualified GHG reduction plan and therefore, proposed Project GHG emissions would not result in a significant impact on the environment. None of the comments raised by this commenter or others represents new significant information that would warrant recirculation of the EIR. Findings and conclusions of the Draft EIR are not affected and no revisions to the Draft EIR are required.

COMMENT NO. 7-27

Furthermore, we compared the Project's GHG emissions to the SCAQMD 2035 service population efficiency target of metric tons of carbon dioxide equivalents per service population per year ("MT CO2e/SP/year"), which was calculated by applying a 40% reduction to the 2020 targets.[33] 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."[34] According to the DEIR, the Project documents assume a projected 654 employees (p. 4.20-9). As the proposed Project does not include any residential land uses, we calculated a SP of 654 people.[35] When dividing the Project's net annual GHG emissions by a SP of 654 people, we find that the Project would emit approximately 8.79 MT CO2e/SP/year (see table below).[36]

DEIR Annual Greenhouse Gas Emissions

Project Phase	Proposed Project
Total Net Annual GHG Emissions	5,748.81
Service Population	654
Service Population Efficiency (MT CO2e/SP/year)	**8.79**
SCAQMD 2035 Threshold	**3.0**
Exceeds?	***Yes***

As demonstrated above, the Project's service population efficiency value exceeds the SCAQMD 2035 efficiency target of 3.0 MT CO2e/SP/year, indicating a potentially significant impact. A revised EIR should be prepared to include a GHG analysis which incorporates additional mitigation measures to reduce the Project's GHG emissions to less-than-significant levels.

Footnote 33: "Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #15." SCAQMD, September 2010, available at: http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqasignificance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf, p. 2.

Footnote 34: "CEQA & Climate Change." California Air Pollution Control Officers Association (CAPCOA), January 2008,available at: https://www.ourair.org/wp-content/uploads/CAPCOA-CEQA-and-Climate-Change.pdf., p. 71-72.

Footnote 35: Calculated: 0 residents + 654 employees = 654 service population.

Footnote 36: Calculated: (5,748.81 MT CO2e/year) / (654 service population) = (8.79 MT CO2e/SP/year).

RESPONSE NO. 7-27

See Response No. 7-26 above. The service population threshold included in the comment is based on statewide population and emissions data and has been invalidated by the Golden Door Properties, LLC v. County of San Diego case in 2018.[8] In addition, section 4.9 Greenhouse Gas Emissions (pg. 4.9-11) of the Draft EIR discusses the City's Climate Action Plan (CAP) and applicability while EIR page 4.9-26 shows how the proposed Project is compliant with the CAP and CAP checklist. The Project would comply with the GHG Emission Reduction Actions listed, which would become conditions of approval for the Project. As demonstrated, the comment asserted is incorrect; the proposed Project is fully consistent with the City's GHG threshold and methodology.

COMMENT NO. 7-28

Mitigation

[8] Golden Door Properties v. County of San Diego, 27 Cal. App. 5th 892 (2018).

Feasible Mitigation Measures Available to Reduce Emissions

Our analysis demonstrates that the Project would result in potentially significant air quality, health risk, and GHG impacts that should be mitigated further. To reduce emissions, the Project should consider the implementation of the following mitigation measures found in the California Department of Justice Warehouse Project Best Practices document.[37]

- 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.
- 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 zero-emission 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 single-occupancy 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.

A revised EIR should be prepared to include all feasible mitigation measures, as well as include updated air quality, health risk, and GHG analyses to ensure that the necessary mitigation measures are implemented to reduce emissions to the maximum extent feasible. The revised EIR should also demonstrate a commitment to the implementation of these measures prior to Project approval, to ensure that the Project's potentially significant emissions are reduced to the maximum extent possible.

Footnote 37: "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:https://oag.ca.gov/system/files/media/warehouse-best-practices.pdf, p. 8 – 10.

RESPONSE NO. 7-28

As discussed on pages 4.4-31 through 4.4-46, within Section 4.4, Air Quality in the Draft EIR impacts related to air quality would be less than significant. Furthermore, as discussed on pages 4.9-18 through 4.9-28, Section 4.9, Greenhouse Gas Emissions in the Draft EIR, impacts related to greenhouse gas emissions would be less than significant. No mitigation measures to reduce emissions would be required as impacts would be less than significant. Findings and conclusions of the Draft EIR are not affected. Revisions to the Draft EIR are not required.

COMMENT NO. 7-29

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.

RESPONSE NO. 7-29

Because the comment does not raise a substantive issue on the content of the Draft EIR, no further response is warranted.

COMMENT NO. 7-30

This comment includes Attachment A: SWAPE's CalEEMod Output Files as referenced in Letter 7 in Appendix A, Original Comment Letters.

RESPONSE NO. 7-30

Please refer to Response to Comments 7-14 through 6-27 for responses regarding CalEEMod outputs and consistency with the Draft EIR. Because the comment does not raise a substantive issue on the content of the Draft EIR, no further response is warranted.

3. Corrections and Additions

3.1 Introduction

In accordance with the CEQA Guidelines Section 15132 (a), this Chapter of the Final EIR is intended to provide any changes to the Draft EIR that have been made to clarify, correct, or supplement the information provided in that document. More specifically, CEQA requires recirculation of a Draft EIR only when "significant new information" is added to a Draft EIR after public notice of the availability of the Draft EIR has occurred (refer to California Public Resources Code Section 21092.1 and CEQA Guidelines Section 15088.5), but before the EIR is certified. CEQA Guidelines Section 15088.5 specifically states:

"New information added to an EIR is not 'significant' unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement. 'Significant new information' requiring recirculation includes, for example, a disclosure showing that:

- *A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.*
- *A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted to reduce the impact to a level of insignificance.*
- *A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it.*
- *The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded."*

CEQA Guidelines Section 15088.5 also provides that "[r]ecirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR... A decision not to recirculate an EIR must be supported by substantial evidence in the administrative record."

As demonstrated in this Final EIR, the changes presented in this Chapter do not constitute new significant information warranting recirculation of the Draft EIR as set forth in CEQA guidelines Section 15088.5. Rather, the Draft EIR is comprehensive and has been prepared in accordance with CEQA.

Change to the Draft EIR are indicated below under the respective EIR section heading page number and paragraph. Paragraph reference is to the first fill paragraph on the page. Deletions are shown with ~~strikethrough~~ and additions with <u>underline</u>.

3.2 Corrections and Additions

1. Table of Contents, pages IV through V. Tables have been revised as followed:

2. Table of Contents, pages IV through V. Figures have been revised as followed:

3. Chapter 4, Section 4.4 Air Quality, page 4.4-18. The first paragraph has been revised as follows:

Emissions of O_3, NO_X, VOC, and CO have been decreasing in the SCAB since 1975 and were projected to continue to decrease through 2020. These decreases result primarily from motor vehicle controls and reductions in evaporative emissions. Although vehicle miles traveled (VMT) in the SCAB continue to increase, NO_X and VOC levels are decreasing because of the mandated controls on motor vehicles and the replacement of older polluting vehicles with lower-emitting vehicles. NO_X emissions from electric utilities have also decreased due to use of cleaner fuels and renewable energy. O_3 contour maps show that the number of days exceeding the 8-hour NAAQS has generally decreased between 1980 and 2020. For 2020, there was an overall decrease in exceedance days compared with the 1980 period. However, as shown on **~~Table~~ Figure ~~4.4-4~~ 4.4-1: SCAB O3 Trend**, O_3 levels have increased in the past three years due to higher temperatures and stagnant weather conditions. Notwithstanding, O_3 levels in the SCAB have decreased substantially over the last 30 years with the current maximum measured concentrations being approximately one-third of concentrations within the late 1970's.

4. Chapter 4, Section 4.4 Air Quality, page 4.4-18. Table 4.4-4: SCAB O3 Trend has been revised as follows:

~~Table~~ Figure ~~4.4-4~~ 4.4-1: SCAB ~~O3~~ O_3Trend

5. Chapter 4, Section 4.4 Air Quality, page 4.4-18 through page 4.4-19. The last paragraph has been revised as follows:

As with other pollutants, the most recent PM10 statistics show an overall improvement as illustrated in **~~Table 4.4-5~~ Figure 4.4-2: SCAB Average 24-Hour Concentration PM10 Trend (Based on Federal Standard)** and **~~Table 4.4-6~~ Figure 4.4-3: SCAB Annual Average Concentration PM10 Trend (Based on State Standard)**. During the period for which data are available, the 24-hour national annual average concentration for PM10 decreased by approximately 46%, from 103.7 microgram per cubic meter (µg/m³) in 1988 to 55.5 µg/m³ in 2020. Although the values are below the federal standard, it should be noted that there are days within the year where the concentrations would exceed the threshold. The 24-hour state annual average for emissions for PM10, have decreased by approximately 64%, from 93.9 µg/m³ in 1989 to 33.9 µg/m³ in 2020. Although data in the late 1990's show some variability, this is probably due to the advances in meteorological science rather than a change in emissions. Similar to the ambient concentrations, the calculated number of days above the 24-hour PM10 standards has also shown an overall drop.

6. Chapter 4, Section 4.4 Air Quality, page 4.4-19. Table 4.4-5: SCAB Average 24-Hour Concentration PM10 Trend (Based on Federal Standard) has been revised as follows:

~~Table 4.4-5~~ Figure 4.4-2: SCAB Average 24-Hour Concentration PM10 Trend (Based on Federal Standard)

7. Chapter 4, Section 4.4 Air Quality, page 4.4-19. Table 4.4-6: SCAB Annual Average Concentration PM10 Trend (Based on State Standard) has been revised as follows:

~~Table 4.4-6~~ Figure 4.4-3: SCAB Annual Average Concentration PM10 Trend (Based on State Standard)

8. Chapter 4, Section 4.4 Air Quality, page 4.4-20. The first paragraph has been revised as follows:

~~Table 4.4-7~~ Figure 4.4-4: SCAB 24-Hour Average Concentration $PM_{2.5}$ Trend (Based on Federal Standard) and **~~Table 4.4-8~~ Figure 4.4-5: SCAB Annual Average Concentration $PM_{2.5}$ Trend (Based on State Standard)** shows the most recent 24-hour average $PM_{2.5}$ concentrations in the SCAB from 1999 through 2020. Overall, the national and state annual average concentrations have decreased by almost 50% and 31% respectively. It should be noted that the SCAB is currently designated as nonattainment for the state and federal $PM_{2.5}$ standards.

9. Chapter 4, Section 4.4 Air Quality, page 4.4-20. Table 4.4-7: SCAB 24-Hour Average Concentration PM2.5 Trend (Based on Federal Standard) has been revised as follows:

~~Table 4.4-7~~ Figure 4.4-4: SCAB 24-Hour Average Concentration PM2.5 Trend (Based on Federal Standard)

10. Chapter 4, Section 4.4 Air Quality, page 4.4-20. Table 4.4-8: SCAB Annual Average Concentration PM2.5 Trend (Based on State Standard) has been revised as follows:

~~Table 4.4-8~~ Figure 4.4-5: SCAB Annual Average Concentration PM2.5 Trend (Based on State Standard)

11. Chapter 4, Section 4.4 Air Quality, page 4.4-21. The third paragraph has been revised as follows:

In December 2022, the SCAQMD released the Final 2022 AQMP. The 2022 AQMP continues to evaluate current integrated strategies and control measures to meet the NAAQS, as well as explore new and innovative methods to reach its goals. Some of these approaches include utilizing incentive programs, recognizing existing co-benefit programs from other sectors, and developing a strategy with fair-share reductions at the federal, state, and local levels. Similar to the 2016 AQMP, the 2022 AQMP incorporates scientific and technological information and planning assumptions, including the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (2020-2045 RTP/SCS) and updated emission inventory methodologies for various source categories. The most recent CO concentrations in the SCAB are shown in **~~Table 4.4-9~~ Figure 4.4-6: SCAB 8-Hour Average Concentration CO Trend**. CO concentrations in the SCAB have decreased markedly a total decrease of more about 80% in the peak 8-hour concentration from 1986 to 2012. It should be noted 2012 is the most recent year where 8-hour CO averages and related statistics are available in the SCAB. The number of exceedance days has also declined. The entire SCAB is now designated as attainment for both the state and national CO standards. Ongoing reductions from motor vehicle control programs should continue the downward trend in ambient CO concentrations.

12. Chapter 4, Section 4.4 Air Quality, page 4.4-22. Table 4.4-9: SCAB 8-Hour Average Concentration CO Trend has been revised as follows:

~~Table 4.4-9~~ Figure 4.4-6: SCAB 8-Hour Average Concentration CO Trend

13. Chapter 4, Section 4.4 Air Quality, page 4.4-22. The first paragraph has been revised as follows:

The most recent NO_2 data for the SCAB is shown in **~~Table 4.4-10~~ Figure 4.4-7: SCAB 1-Hour Average Concentration NO_2 Trend (Based on Federal Standard)** and **~~Table 4.4-11~~ Figure 4.4-8: SCAB 1-Hour Average Concentration NO_2 Trend (Based on State Standard)**. Over the last 50 years, ~~NO2~~ NO_2 values have decreased significantly; the peak 1-hour national and state averages for 2020 is approximately 80% lower than what it was during 1963. The SCAB attained the State 1-hour ~~NO2~~ NO_2 standard in 1994, bringing the entire state into attainment. A new state annual average standard of 0.030 ppm was adopted by CARB in February 2007. The new standard is just barely exceeded in the SCAQMD. ~~NO2~~ $NO_2$is formed from NOX emissions, which also contribute to O_3. As a result, the majority of the future emission control measures would be implemented as part of the overall O_3 control strategy. Many of these control measures would target mobile sources, which account for more than three-quarters of California's NO_X emissions. These measures are expected to bring the SCAQMD into attainment of the state annual average standard.

14. Chapter 4, Section 4.4 Air Quality, page 4.4-23. Table 4.4-10: SCAB 1-Hour Average Concentration NO2 Trend (Based on Federal Standard) has been revised as follows:

~~Table 4.4-10~~ Figure 4.4-7: SCAB 1-Hour Average Concentration NO_2 Trend (Based on Federal Standard)

15. Chapter 4, Section 4.4 Air Quality, page 4.4-23. Table 4.4-11: SCAB 1-Hour Average Concentration NO_2 Trend (Based on State Standard) has been revised as follows:

~~Table 4.4-11~~ Figure 4.4-8: SCAB 1-Hour Average Concentration NO2 Trend (Based on State Standard)

16. Chapter 4, Section 4.4 Air Quality, page 4.4-24. The third paragraph has been revised as follows:

In 2000, CARB's Diesel Risk Reduction Plan (DRRP) recommended the replacement and retrofit of diesel-fueled engines and the use of ultra-low-sulfur (<15 ppm) diesel fuel. As a result of these measures, DPM concentrations have declined 68% since 2000, even though the state's population increased 31% and the amount of diesel vehicles miles traveled increased 81%, as shown on **Figure ~~4.4-1~~ 4.4-9: DPM and Diesel Vehicle Miles Trend.** With the implementation of these diesel-related control regulations, CARB expects a DPM decline of 71% for 2000-2020.

17. Chapter 4, Section 4.4 Air Quality, page 4.4-24. Figure 4.4-1: DPM and Diesel Vehicle Miles Trend has been revised as follows:

Figure ~~4.4-1~~ 4.4-9: DPM and Diesel Vehicle Miles Trend

18. Chapter 4, Section 4.4 Air Quality, page 4.4-25. The last paragraph has been revised as follows:

In January 2018, as part of the overall effort to reduce air toxics exposure in the SCAB, SCAQMD began conducting the MATES V Program. MATES V field measurements were conducted at ten fixed sites (the same sites selected for MATES III and IV) to assess trends in air toxics levels. MATES V also included measurements of ultrafine particles (UFP) and black carbon (BC) concentrations, which can be compared to the UFP levels measured in MATES IV. The draft report for the MATES V study was published in late May and the comment submission deadline on June 7, 2021. In addition to new measurements and updated modeling results, several key updates were implemented in MATES V. First, MATES V estimates cancer risks by taking into account multiple exposure pathways, which includes inhalation and non-inhalation pathways. This approach is consistent with how cancer risks are estimated in South Coast AQMD's programs such as permitting, Air Toxics Hot Spots (AB2588), and CEQA. Previous MATES studies quantified the cancer risks based on the inhalation pathway only. Second, along with cancer risk estimates, MATES V includes information on the chronic non-cancer risks from inhalation and non-inhalation pathways for the first time. Cancer risks and chronic non-cancer risks from MATES II through IV measurements have been re-examined using current Office of Environmental Health Hazard Assessment (OEHHA) and CalEPA risk assessment methodologies and modern statistical methods to examine the trends over time. **Figure ~~4.4-2~~ 4.4-10: MATES V Risk Map** illustrates the MATES V Risk trends for the nearest available monitoring site to the Project, located in Long Beach.

19. Chapter 4, Section 4.4 Air Quality, page 4.4-26. Figure 4.4-2: MATES V Risk Map has been revised as follows:

Figure ~~4.4-2~~ 4.4-10: MATES V Risk Map

20. Chapter 4, Section 4.4 Air Quality, page 4.4-30. The last paragraph has been revised as follows:

SCAQMD has developed regional significance thresholds for regulated pollutants. **Table ~~4.4-12~~ 4.4-4: Maximum Daily Regional Emissions Thresholds**, presents SCAQMD's CEQA Air Quality Significance Thresholds. Any project in the SCAB with daily emissions that exceed the thresholds presented in Table ~~4.4-12~~ 4.4-3, should be considered as having an individually and cumulatively significant air quality impact.

21. Chapter 4, Section 4.4 Air Quality, page 4.4-31. Table 4.4-12: Maximum Daily Regional Emissions Thresholds has been revised as follows:

Table ~~4.4-12~~ 4.4-4: Maximum Daily Regional Emissions Thresholds

22. Chapter 4, Section 4.4 Air Quality, page 4.4-33. The first paragraph has been revised as follows:

Construction of the proposed Project would result in emissions of VOCs, NO_X, SO_X, CO, PM10, and PM2.5. **Table ~~4.4-13~~ 4.4-5: Summary of Construction Emissions– Without Mitigation**, presents emissions generated by construction activities associated with the proposed Project. CalEEMod utilizes summer and winter EMFAC2021 emission factors in order to derive vehicle emissions associated with Project activities, which vary by season. As such, the estimated maximum daily construction emissions without mitigation are summarized for both summer and

winter periods. Detailed unmitigated construction model outputs are provided in **Appendix B**. As shown, emissions resulting from proposed Project construction would not exceed criteria pollutant thresholds established by the SCAQMD.

23. Chapter 4, Section 4.4 Air Quality, page 4.4-33. Table 4.4-13 Summary of Construction Emissions – Without Mitigation has been revised as follows:

Table ~~4.4-13~~ 4.4-5: Summary of Construction Emissions – Without Mitigation

24. Chapter 4, Section 4.4 Air Quality, page 4.4-33. The last paragraph has been revised as follows:

Table ~~4.4-14~~ 4.4-6: Summary of Peak Operational Emissions for Tenant Use Option 1 (2025), presents operational emissions for Tenant Use Option 1. Tenant Use Option 1 is Manufacturing. As shown, none of the SCAQMD regional significance thresholds would be exceeded under Tenant Use Option 1.

25. Chapter 4, Section 4.4 Air Quality, page 4.4-34. Table 4.4-14: Summary of Peak Operational Emissions for Tenant Use Option 1 (2025) has been revised as follows:

Table ~~4.4-14~~ 4.4-6: Summary of Peak Operational Emissions for Tenant Use Option 1 (2025)

26. Chapter 4, Section 4.4 Air Quality, page 4.4-34. The first paragraph has been revised as follows:

Table ~~4.4-15~~ 4.4-6: Summary of Peak Operational Emissions for Tenant Use Option 2, presents operational emissions for Tenant Use Option 2. Tenant Use Option 2 is General Light Industrial. As shown, none of the SCAQMD regional significance thresholds would be exceeded under Tenant Use Option 2.

27. Chapter 4, Section 4.4 Air Quality, page 4.4-34. Table 4.4-15: Summary of Peak Operational Emissions for Tenant Use Option 2 has been revised as follows:

Table ~~4.4-15~~ 4.4-6: Summary of Peak Operational Emissions for Tenant Use Option 2

28. Chapter 4, Section 4.4 Air Quality, page 4.4-35. The first paragraph has been revised as follows:

Table ~~4.4-16~~ 4.4-8: Summary of Peak Operational Emissions for Tenant Use Option 3, presents operational emissions for Tenant Use Option 3. Tenant Use Option 3 is Warehouse. As shown, none of the SCAQMD regional significance thresholds would be exceeded under Tenant Use Option 3.

29. Chapter 4, Section 4.4 Air Quality, page 4.4-35. Table 4.4-16: Summary of Peak Operational Emissions for Tenant Use Option 3 has been revised as follows:

Table ~~4.4-16~~ 4.4-8: Summary of Peak Operational Emissions for Tenant Use Option 3

30. Chapter 4, Section 4.4 Air Quality, page 4.4-36. The first paragraph has been revised as follows:

Table ~~4.4-17~~ 4.4-9: Summary of Peak Operational Emissions for Tenant Use Option 4, presents operational emissions for Tenant Use Option 4. Tenant Use Option 4 is High-Cube Fulfillment (Non-Sort). As shown, none of the SCAQMD regional significance thresholds would be exceeded under Tenant Use Option 4.

31. Chapter 4, Section 4.4 Air Quality, page 4.4-36. Table 4.4-17: Summary of Peak Operational Emissions for Tenant Use Option 4 has been revised as follows:

Table ~~4.4-17~~ 4.4-9: Summary of Peak Operational Emissions for Tenant Use Option 4

32. Chapter 4, Section 4.4 Air Quality, page 4.4-36. The second paragraph has been revised as follows:

Table ~~4.4-18~~ 4.4-10: Summary of Peak Operational Emissions for Tenant Use Option 5, presents operational emissions for Tenant Use Option 5. Tenant Use Option 5 is High-Cube Cold Storage and accounts for the use of TRUs and an emergency backup generator. As shown, none of the SCAQMD regional significance thresholds would be exceeded under Tenant Use Option 5.

33. Chapter 4, Section 4.4 Air Quality, page 4.4-36. Table 4.4-18: Summary of Peak Operational Emissions for Tenant Use Option 5 has been revised as follows:

Table ~~4.4-18~~ 4.4-10: Summary of Peak Operational Emissions for Tenant Use Option 5

34. Chapter 4, Section 4.4 Air Quality, page 4.4-37. The first paragraph has been revised as follows:

Table ~~4.4-19~~ 4.4-11: Summary of Peak Operational Emissions for Tenant Use Option 6, presents operational emissions for Tenant Use Option 6. Tenant Use Option 6 is 25 percent Manufacturing and 75 percent Warehouse. As shown, none of the SCAQMD regional significance thresholds would be exceeded under Tenant Use Option 6.

35. Chapter 4, Section 4.4 Air Quality, page 4.4-37. Table 4.4-19: Summary of Peak Operational Emissions for Tenant Use Option 6 has been revised as follows:

Table ~~4.4-19~~ 4.4-11: Summary of Peak Operational Emissions for Tenant Use Option 6

36. Chapter 4, Section 4.4 Air Quality, page 4.4-38. The first paragraph has been revised as follows:

Table ~~4.4-20~~ 4.4-12: Summary of Peak Operational Emissions for Tenant Use Option 7, presents operational emissions for Tenant Use Option 7. Tenant Use Option 7 is 25 percent manufacturing and 75 percent High-Cube transload. As shown, none of the SCAQMD regional significance thresholds would be exceeded under Tenant Use Option 7.

37. Chapter 4, Section 4.4 Air Quality, page 4.4-38. Table 4.4-20: Summary of Peak Operational Emissions for Tenant Use Option 7 has been revised as follows:

Table ~~4.4-20~~ 4.4-12: Summary of Peak Operational Emissions for Tenant Use Option 7

38. Chapter 4, Section 4.4 Air Quality, page 4.4-38. The last paragraph has been revised as follows:

As shown in Table ~~4.4-20~~ 4.4-12, emissions from construction of the proposed Project would not exceed any of the SCAQMD regional significance thresholds. Similarly, as shown in Tables ~~4.4-14~~ 4.4-6 through ~~4.4-20~~ 4.4-12 evaluation of the seven Tenant Use Options indicate that proposed Project operations would not exceed SCAQMD regional emissions thresholds. Therefore, construction and operational emissions would not result in substantial air pollutant emissions. Impacts to air quality associated with construction and operation of the proposed Project would be less than significant.

39. Chapter 4, Section 4.4 Air Quality, page 4.4-39. The second paragraph has been revised as follows:

Table ~~4.4-21~~ 4.4-13 ~~p~~Peak Day Localized Significance Summary ~~Peak~~ During Construction shows peak day localized emission during Project construction at the maximally exposed sensitive land use (Location R6). The maximally exposed sensitive land use (Location R6) is located approximately 101 feet west of the Project site. As shown, emissions during peak construction activity will not exceed the SCAQMD's localized significance thresholds at the maximally exposed sensitive land use (Location R6). All other study area receptors would be exposed to a lesser concentration and consequently experience a lesser impact. Accordingly, localized impacts associated with construction of the proposed Project would be less than significant. Outputs from the model runs for construction LSTs are provided **in Appendix B**.

40. Chapter 4, Section 4.4 Air Quality, page 4.4-39. Table 4.4-21: Peak Day Localized Significance Summary During Construction has been revised as follows:

Table ~~4.4-21~~ 4.4-13: Peak Day Localized Significance Summary During Construction

41. Chapter 4, Section 4.4 Air Quality, page 4.4-39. The third paragraph has been revised as follows:

~~Tables 4.4-22~~ Tables 4.4-14 through 4.4-20 ~~4.4-28~~ show localized emissions for the seven Tenant Use Options at maximally exposed sensitive land use (Location R6). Outputs from the model runs for operational LSTs are provided in **Appendix B**.

42. Chapter 4, Section 4.4 Air Quality, page 4.4-39. The last paragraph has been revised as follows:

Table ~~4.4-22~~ 4.4-14: Peak Operations Summary – Localized Significance - Tenant Use Option 1, presents operational emissions for Tenant Use Option 1. As shown, none of the peak day localized emissions would exceed the SCAQMD significance thresholds.

43. Chapter 4, Section 4.4 Air Quality, page 4.4-40. Table 4.4-22: Peak Operations Summary – Localized Significance - Tenant Use Option 1 has been revised as follows:

Table ~~4.4-22~~ 4.4-14: Peak Operations Summary – Localized Significance - Tenant Use Option 1

44. Chapter 4, Section 4.4 Air Quality, page 4.4-40. The first paragraph has been revised as follows:

Table ~~4.4-23~~ 4.4-15: Peak Operations Summary – Localized Significance - Tenant Use Option 2, presents operational emissions for Tenant Use Option 2. As shown, none of the peak day localized emissions would exceed the SCAQMD significance thresholds.

45. Chapter 4, Section 4.4 Air Quality, page 4.4-40. Table 4.4-23: Peak Operations Summary – Localized Significance - Tenant Use Option 2 has been revised as follows:

Table ~~4.4-23~~ 4.4-15: Peak Operations Summary – Localized Significance - Tenant Use Option 2

46. Chapter 4, Section 4.4 Air Quality, page 4.4-40. The second paragraph has been revised as follows:

Table ~~4.4-24~~ 4.4-16: Peak Operations Summary – Localized Significance - Tenant Use Option 3 is Warehouse. As shown, none of the peak day localized emissions would exceed the SCAQMD significance thresholds.

47. Chapter 4, Section 4.4 Air Quality, page 4.4-40. Table 4.4-24: Peak Operations Summary – Localized Significance - Tenant Use Option 3 has been revised as follows:

Table ~~4.4-24~~ 4.4-16: Peak Operations Summary – Localized Significance - Tenant Use Option 3

48. Chapter 4, Section 4.4 Air Quality, page 4.4-40. The last paragraph has been revised as follows:

Table ~~4.4-25~~ 4.4-17: Peak Operations Summary – Localized Significance - Tenant Use Option 4, presents operational emissions for Tenant Use Option 4. As shown, none of the peak day localized emissions would exceed the SCAQMD significance thresholds.

49. Chapter 4, Section 4.4 Air Quality, page 4.4-41. Table 4.4-25: Peak Operations Summary – Localized Significance - Tenant Use Option 4 has been revised as follows:

Table ~~4.4-25~~ 4.4-18: Peak Operations Summary – Localized Significance - Tenant Use Option 4

50. Chapter 4, Section 4.4 Air Quality, page 4.4-41. The first paragraph has been revised as follows:

Table ~~4.4-26~~ 4.4-18: Peak Operations Summary – Localized Significance - Tenant Use Option 5, presents operational emissions for Tenant Use Option 5. As shown, none of the peak day localized emissions would exceed the SCAQMD significance thresholds.

51. Chapter 4, Section 4.4 Air Quality, page 4.4-41. Table 4.4-26: Peak Operations Summary – Localized Significance - Tenant Use Option 5 has been revised as follows:

Table ~~4.4-26~~ 4.4-18: Peak Operations Summary – Localized Significance - Tenant Use Option 5

52. Chapter 4, Section 4.4 Air Quality, page 4.4-41. The second paragraph has been revised as follows:

Table ~~4.4-27~~ 4.4-19: Peak Operations Summary – Localized Significance - Tenant Use Option 6, presents operational emissions for Tenant Use Option 6. As shown, none of the peak day localized emissions would exceed the SCAQMD significance thresholds.

53. Chapter 4, Section 4.4 Air Quality, page 4.4-41. Table 4.4-27: Peak Operations Summary – Localized Significance - Tenant Use Option 6 has been revised as follows:

Table ~~4.4-27~~ 4.4-19: Peak Operations Summary – Localized Significance - Tenant Use Option 6

54. Chapter 4, Section 4.4 Air Quality, page 4.4-41. The last paragraph has been revised as follows:

Table ~~4.4-28~~ 4.4-20: Peak Operations Summary – Localized Significance - Tenant Use Option 7, presents operational emissions for Tenant Use Option 7. As shown, none of the peak day localized emissions would exceed the SCAQMD significance thresholds.

55. Chapter 4, Section 4.4 Air Quality, page 4.4-42. Table 4.4-28: Peak Operations Summary – Localized Significance - Tenant Use Option 7 has been revised as follows:

Table ~~4.4-28~~ 4.4-20: Peak Operations Summary – Localized Significance - Tenant Use Option 7

56. Chapter 4, Section 4.9 Greenhouse Gas Emissions, page 4.9-25. Table 4.8-7: Project GHG Emissions Summary has been revised as follows:

Table ~~4.8-7~~ 4.9-7: Project GHG Emissions Summary

57. Chapter 4, Section 4.14 Noise, page 4.14-7. Figure 4.13-3: Typical Levels of Ground-Borne Vibration has been revised as follows:

Figure ~~4.13-3~~ 4-14.3: Typical Levels of Ground-Borne Vibration

58. Chapter 4, Section 4.18 Transportation, page 4.18-12. The fifth paragraph has been revised as follows:

Other sections of the DEIR (e.g., Section 4.18 Transportation and Executive Summary) determined that VMT impacts of the proposed Project and would be significant and unavoidable. As demonstrated in this Final EIR, the changes presented below do not constitute new significant information warranting recirculation of the Draft EIR as set forth in CEQA guidelines Section 15088.5.

Similar to the Project any related project that would be subject to environmental review would be required to evaluate VMT on a project-by-project basis. If the related project were determined to have potentially significant VMT impacts, it would be required to include appropriate mitigation measures to reduce VMT impacts to the extent feasible ~~a less than significant level~~. As the Project would result in a ~~less than significant~~ significant and unavoidable VMT impact, the Project would result in a ~~less than significant~~ significant and unavoidable cumulative VMT impacts~~.~~

4. Mitigation Monitoring and Reporting Program

This Mitigation Monitoring and Reporting Program (MMRP), which is provided in **Table 4-1, Mitigation Monitoring and Reporting Program**, below, has been prepared pursuant to Public Resources Code Section 21081.6, which requires a Lead Agency to adopt a "reporting or monitoring program for changes to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment." In addition, CEQA Guidelines Section 15097(a) requires that:

> *In order to ensure that the mitigation measures and project revisions identified in the EIR or negative declaration are implemented, the public agency shall adopt a program for monitoring or reporting on the revisions which it has required in the project and measures it has imposed to mitigate or avoid significant environmental effects. A public agency may delegate reporting or monitoring responsibilities to another public agency or to a private entity which accepts the delegation; however, until mitigation measures have been completed the lead agency remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the program.*

The City of Long Beach is the Lead Agency for the proposed Project and therefore is responsible for administering and implementing the MMRP. The decision-makers must define specific reporting and/or monitoring requirements to be enforced during Project implementation prior to final approval of the proposed Project. The primary purpose of the MMRP is to ensure that the mitigation measures identified in the Draft EIR are implemented, thereby minimizing identified environmental effects.

The MMRP also includes Project Design Features (PDFs) identified throughout Chapter 2, Project Description of the Draft EIR. The PDFs are specific design elements proposed by the Applicant that have been incorporated into the Project that serve to reduce or avoid potential environmental effects. Because PDFs have been incorporated into the proposed Project, they do not constitute mitigation measures, as defined by CEQA Guidelines Section 15126.4. However, PDFs are included in this MMRP to ensure their implementation as a part of the Project.

Final clearance shall require all applicable verification as indicated in **Table 4-1**. The City will have primary responsibility for monitoring and reporting the implementation of the PDFs and mitigation measures unless otherwise indicated. The PDFs and mitigation measures are identified by the impact category and number that correspond with the Draft EIR.

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Table 4-1: Mitigation Monitoring and Reporting Program

Project Design Feature (PDF) or Mitigation Measure (MM)	Monitoring Phase	Enforcement Agency	Action Indicating Compliance
Project Design Feature			
Rooftop Solar Photovoltaic Panels. Solar array to provide 1,840,000 watts DC, including approximately (26) roof mounted 10,000 volt string inverters, 3,250 solar panels, on-site battery storage, with expected 2,965,000 kWh generated annually.	Operation	City of Long Beach Planning Bureau City of Long Beach Building and Safety	Plan check approval and issuance of Certificate of Occupancy. Proof of installation of solar array at inspection.
LEED Certification. Targeted to achieve LEED v4 Silver Certification	Pre-Construction Operation	City of Long Beach Planning Bureau City of Long Beach Building and Safety	Plan check approval and issuance of Certificate of Occupancy. Compliance shall be demonstrated by achieving LEED Certification through the submission of a completed application for review to the Green Business Certification Inc.
Mitigation Measure (MM)			
MM CUL-1, Inadvertent Discovery of Cultural Resources. In the event that any subsurface cultural resources are encountered at the Project site during construction or the course of any ground disturbance activities, all such activities within 50 feet of the discovery shall halt immediately. The applicant shall notify the City and consult with a Secretary of Interior qualified archaeologist who shall evaluate the find in accordance with Federal, State, and local guidelines, including those set forth in the California Public Resources Code Section 21083.2 and shall determine the necessary findings as to the origin and disposition to assess the significance of the find. If any find is determined to be significant, appropriate avoidance measures recommended by the consultant and approved by the City must be followed unless avoidance is determined to be unnecessary or infeasible by the City. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery, excavation) shall be instituted. For any resources of Native American origin, the City shall also contact the Tribes that elected to consult on the Project to identify its potential as a Tribal Cultural Resource (TCR). Should the resource, in consultation between the City and Tribe(s), be determined a	During construction or course of ground disturbance activities	City of Long Beach Public Works City of Long Beach Community Development Department Secretary of Interior Qualified Archaeologist Consulting Tribes	If resources are found, recordation of all identified cultural resources on appropriate CA DPR 523 series forms. All records will be submitted to the City of Long Beach, Consulting Tribe(s), and South-Central Coastal Information Center (SCCIC).

Project Design Feature (PDF) or Mitigation Measure (MM)	Monitoring Phase	Enforcement Agency	Action Indicating Compliance
TCR, the City shall also consult with Tribes regarding avoidance or other measures recommended by the consultant. All identified cultural resources will be recorded on appropriate CA DPR 523 series forms and evaluated for significance. All records will be submitted to the City of Long Beach, Consulting Tribe(s), and South Central Coastal Information Center (SCCIC).			
MM CUL-2, Inadvertent Discovery of Human Remains. In the event that human skeletal remains are encountered at the project site during construction or the course of any ground disturbance activities, all such activities within 100 feet shall halt immediately, pursuant to State Health and Safety Code Section 7050.5 which requires that no further ground disturbance shall occur until the County Coroner has made the necessary findings as to the origin and disposition pursuant to California Public Resources Code Section 5097.98. Additionally, the following procedures shall be followed: Contact the County Coroner: 1104 N. Mission Road Los Angeles, CA 90033 (323) 343-0512 (8 a.m. to 5 p.m. Monday through Friday) or (323) 343-0714 (After Hours, Saturday, Sunday, and Holidays) If the remains are determined to be of Native American descent, the Coroner has 24 hours to notify the Native American Heritage Commission (NAHC). The NAHC will immediately notify the person they believe to be the Most Likely Descendent (MLD) of the ancestral remains. The MLD has 48 hours to make recommendations to the owner, or representative, for the treatment or disposition, with proper dignity, of the human remains and grave goods. If the owner does not accept the descendant's recommendations, the owner or the descendent may request mediation by the NAHC.	During Project construction or over the course of any ground disturbance.	City of Long Beach Public Works Department City of Long Beach Planning Bureau County Coroner	If resources are encountered, the County Coroner must be contacted. The County Coroner has 24 hours to notify the NAHC if the remains are determined to be of Native American descent. Compliance shall be demonstrated through a letter from the County Coroner to the City.

Project Design Feature (PDF) or Mitigation Measure (MM)	Monitoring Phase	Enforcement Agency	Action Indicating Compliance
MM GEO-1, Final Geotechnical Site Investigation. The Project Applicant shall engage a California-registered geotechnical engineer to prepare a Final Geotechnical Investigation for the proposed Project. The Final Geotechnical Report shall meet the requirements of the 2022 CBC, California DOC, Division of Mines and Geology Special Publication 117 (SP 117), as amended, the City of Long Beach, and other applicable regulations and standards. The Final Geotechnical Investigation shall describe the geological and geotechnical conditions of the Project site, include design-level geotechnical recommendations, and provide findings, recommendations, and proposed mitigation for addressing potential seismic hazards associated with the proposed Project. The Final Geotechnical Investigation shall be provided to the City of Long Beach for review and approval. Review and approval of the Final Geotechnical Investigation shall be a condition of issuance of building permits by the City of Long Beach.	Pre-construction, prior to issuance of building permits	City of Long Beach Public Works Department City of Long Beach Building and Safety Bureau City of Long Beach Planning Bureau	Compliance shall be demonstrated by the completion of a Final Geotechnical Investigation prepared by a California-registered geotechnical engineer and approved by the City.
MM GEO-2, Remedial Site Grading. The Project Applicant shall employ remedial grading within the proposed building footprint as part of construction of the proposed Project. Remedial grading will include the excavation of the existing undocumented fill soils, as well as the potentially compressible near-surface native alluvium for evaluation purposes and processing. Processing includes scarification, moisture conditioning, and recompaction to at least 90 percent of the ASTM-D-1557 maximum dry density. This layer of fill will help to mitigate any liquefaction-induced differential settlements.	Construction	City of Long Beach Public Works Department City of Long Beach Building and Safety Bureau City of Long Beach Planning Bureau	Plan check approval and issuance of grading permit. Compliance shall be demonstrated and verified through periodic inspections by the City during construction.
MM GEO-3, Paleontological Monitoring. In the event paleontological resources are encountered during construction of the proposed Project, the City shall be immediately informed of the discovery. All work shall cease in the area of the find, and a qualified paleontologist shall be retained by the Applicant to evaluate the find before restarting work in the area. A qualified paleontologist is a paleontologist who meets the Society of Vertebrate Paleontology (SVP) standards for Qualified Professional Paleontologist, which is defined as an individual preferably with an M.S. or Ph.D. in paleontology or geology, who is experienced with paleontological procedures and techniques, who is	Construction	City of Long Beach Public Works Department City of Long Beach Building and Safety Bureau City of Long Beach Planning Bureau Qualified Professional Paleontologist meeting the	If resources are encountered, a qualified paleontologist shall be retained. Compliance shall be demonstrated through the submission of a paleontological resources assessment to the City of Long Beach.

Project Design Feature (PDF) or Mitigation Measure (MM)	Monitoring Phase	Enforcement Agency	Action Indicating Compliance
knowledgeable in the geology of California (preferably Southern California), and who has worked as a paleontological mitigation Project supervisor for a least one year. The City shall require that all paleontological resources identified on the Project site be assessed and treated in a manner determined by the qualified paleontologist. The qualified paleontologist shall be empowered to halt or divert ground disturbing activities.		Society of Vertebrate Paleontology standards	
MM NOI-1, Noise Control Barrier. The Project Applicant would install a minimum 12-foot-high temporary construction noise barrier along the western Project site boundary, starting from Cherry Avenue and extending a minimum of 100 feet to the east along both the northern and southern property lines for the duration of Project construction. The noise control barrier must have a solid face from top to bottom. The noise control barrier must meet the minimum height (12 feet) and be constructed as follows: 1. The temporary noise barriers shall provide a minimum transmission loss of 20 dBA (FHWA, Noise Barrier Design Handbook). The noise barrier shall be constructed using an acoustical blanket (e.g., vinyl acoustic curtains or quilted blankets) attached to the construction site perimeter fence or equivalent temporary fence posts. 2. 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. 3. The noise control barrier and associated elements shall be completely removed, and the site appropriately restored upon the conclusion of the construction activity.	Pre-construction Construction	City of Long Beach Public Works Department City of Long Beach Building and Safety Bureau City of Long Beach Planning Bureau	Compliance shall be demonstrated and verified through periodic inspections by the City of Long Beach during construction.
MM NOI-2, Construction Hours. All construction activities shall comply with LBMC Section 8.80.202 restricting construction activity to the hours between 7:00 p.m. and 7:00 a.m.	Construction	City of Long Beach Building and Safety Bureau City of Long Beach Planning Bureau	Compliance shall be demonstrated and verified through periodic inspections by the City of Long Beach during construction.

Project Design Feature (PDF) or Mitigation Measure (MM)	Monitoring Phase	Enforcement Agency	Action Indicating Compliance
MM NOI-3, Equipment Mufflers. Construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards.	Construction	City of Long Beach Building and Safety Bureau City of Long Beach Planning Bureau	Compliance shall be demonstrated and verified through periodic inspections by the City of Long Beach during construction.
MM NOI-4, Equipment Location. All stationary construction equipment shall be placed in such a manner so that emitted noise is directed away from any sensitive receivers.	Construction	City of Long Beach Building and Safety Bureau City of Long Beach Planning Bureau	Compliance shall be demonstrated and verified through periodic inspections by the City of Long Beach during construction.
MM NOI-5, Staging Areas. Construction equipment staging areas shall be located at the greatest feasible distance between the staging area and the nearest sensitive receivers.	Construction	City of Long Beach Building and Safety Bureau City of Long Beach Planning Bureau	Compliance shall be demonstrated and verified through periodic inspections by the City of Long Beach during construction.
MM NOI-6, Delivery Hours. The construction contractor shall limit equipment and material deliveries to the same hours specified for construction equipment under Mitigation Measure MM-2, Construction Hours.	Construction	City of Long Beach Building and Safety Bureau City of Long Beach Planning Bureau	Compliance shall be demonstrated and verified through periodic inspections by the City of Long Beach during construction.
MM NOI-7, Electric Equipment. Electrically powered air compressors and similar power tools shall be used, when feasible, in place of diesel equipment.	Construction	City of Long Beach Building and Safety Bureau City of Long Beach Planning Bureau	Compliance shall be demonstrated and verified through periodic inspections by the City of Long Beach during construction.
MM NOI-8, Construction Site Noise Limits. No music or electronically reinforced speech from construction workers shall be allowed.	Construction	City of Long Beach Building and Safety Bureau City of Long Beach Planning Bureau	Compliance shall be demonstrated and verified through periodic inspections by the City of Long Beach during construction.

Project Design Feature (PDF) or Mitigation Measure (MM)	Monitoring Phase	Enforcement Agency	Action Indicating Compliance
MM TRA-1, Implement a Voluntary Commute Reduction Program. The ultimate tenant will implement a voluntary Commute Trip Reduction (CTR) program to discourage single-occupancy vehicle trips and encourage alternative modes of transportation such as carpooling, taking transit, walking, and biking.	Operations	City of Long Beach Planning Bureau Project tenant	Compliance shall be demonstrated and verified through the production of a Voluntary Commute Trip Reduction (CTR) Program prior to the issuance of a Certificate of Occupancy.
MM TRA-2, Employer Provided Transit Passes. The ultimate tenant would provide employees with transit passes to encourage commuting by public transit in lieu of traveling by personal vehicle.	Operations	City of Long Beach Planning Bureau Project tenant	Compliance shall be demonstrated by a letter discussing the distribution of transit passes to employees.

APPENDIX A

Original Comment Letters

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DEPARTMENT OF TRANSPORTATION
DISTRICT 7
100 S. MAIN STREET, MS 16
LOS ANGELES, CA 90012
PHONE (213) 266-3574
FAX (213) 897-1337
TTY 711
www.dot.ca.gov

Making Conservation
a California Way of Life

April 26, 2024

Amy L. Harbin, AICP, Planner
City of Long Beach Community Development Department
Planning Bureau
411 West Ocean Boulevard, Third Floor
Long Beach, CA 90802

RE: 5910 Cherry Avenue Industrial Building Project – Draft Environmental Impact Report (DEIR)
GTS #07-LA-2023-04486
Vic. LA 91 PM R13.125

Dear Amy L. Harbin,

Thank you for including the California Department of Transportation (Caltrans) in the review process for the above referenced project. The project is a single, approximately 304,344 square feet (sf), concrete, tilt-up industrial building. The proposed building would be 51 feet high and surrounded by parking areas that would include 338 at-grade parking stalls and 79 at-grade truck parking stalls. On-site passenger vehicle parking would be situated in front of the proposed building, along Cherry Avenue, along the south side of the lot, and in the rear of the building in the northeast corner of the lot. The building would feature 44-truck high-dock doors along the south elevation facing the abutting commercial site. Approximately 10,066 sf of office space would be accommodated in the southwest corner of the building along Cherry Avenue. The office space would be located on the first floor and mezzanine level of the proposed building. To prepare for redevelopment of the parcel with the proposed project, the existing 8 buildings would be demolished and removed from the project site. The proposed project improvements are consistent with the land use and development standards of the Industrial (IG) zoning district in which the project is situated. The City is currently in the process of updating the zoning ordinance to reflect the new PlaceType land uses incorporated in the General Plan's Land Use Element. The Project site is currently zoned (IG) General Industrial.

After reviewing the DEIR, Caltrans has the following comments:

With 304,344 square feet of new industrial use, 338 car parking spaces, 79 truck parking stalls, and 44 truck-high dock doors, the 5910 Cherry Avenue Industrial Building Project will induce demand for a consequential number of additional vehicle trips and vehicle miles traveled (VMT). This is stated in the Transportation section (4.18) of the DEIR where it was found that all 7 tenant use options would result in a significant VMT impact. Caltrans does not concur that these impacts are unavoidable. The currently proposed mitigation measures are inadequate to offset the impacts of the project, as it is designed in the same model of development that has proven to be unsustainable long-term.

Caltrans recommends the following:

- Reducing the amount of parking whenever possible. Research looking at the relationship between land-use, parking, and transportation indicates that the amount of car parking supplied can undermine a project's ability to encourage public transit and active modes of transportation.

- Invest in alternative modes of freight movement, such as rail, which is not only more efficient but also more easily converted to carbon neutral energy sources in the future.

- Due to the increased volume of truck trips, a substantial contribution should be made to a city fund that will build safer infrastructure for people walking, riding bikes, and taking transit throughout the city. The most effective methods to reduce pedestrian and bicyclist exposure to cars and trucks is through physical design and geometrics. These methods include the construction of physically separated facilities such as Class IV bike lanes, wide sidewalks, pedestrian refuge islands, landscaping, street furniture, and reductions in crossing distances through roadway narrowing.

- Additional studies should be conducted to develop additional mitigation measures that include robust walking, biking, and transit infrastructure to further reduce the Project's VMT impact below the threshold of significance.

Following construction, a study should be conducted to confirm that the proposed mitigation measures are sufficiently offsetting the Project generated VMT. If not, new and/or additional mitigation measures need to be implemented.

Additionally, an encroachment permit will be required for any project work proposed near Caltrans Right of Way and all environmental concerns must be adequately

addressed. Please note that any modifications to the State facilities will be subject to additional review by the Office of Permits prior to issuance of the permit.

Finally, construction of the proposed project would involve deliveries of materials, components, and supplies to the various sites, and will involve oversized trucks. As a result, prior to issuance of building or grading permits for the project site, the applicant shall prepare a Construction Traffic Management Plan (CTMP) for review and approval by City staff to reduce any impacts to less than significant levels. The CTMP needs to specify the duration of construction period and provide construction analysis on significant impacts due to increase in construction truck traffic on highways not designated as truck routes. It should also specify any work that would affect the freeways and its facilities, and that Caltrans has the jurisdiction for review and approval. Transportation of heavy construction equipment and/or materials, which requires the use of oversized-transport vehicles on State highways, will require a transportation permit from Caltrans.

If you have any questions, please contact project coordinator Anthony Higgins, at anthony.higgins@dot.ca.gov and refer to GTS #07-LA-2023-04486.

Sincerely,

Miya Edmonson

Miya Edmonson
LDR/CEQA Branch Chief

Cc: State Clearinghouse

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LETTER 2

Yemi Alade

From: LBDS-EIR-Comments <LBDS-EIR-Comments@longbeach.gov>
Sent: Thursday, April 11, 2024 7:36 AM
To: Haseeb Qureshi (hqureshi@urbanxroads.com); Charlene So
Cc: Yemi Alade; Rachel Hickenbottom; Joe Williams
Subject: FW: Technical data request for the Cherry Avenue Industrial Building Project.

Importance: High

[EXTERNAL EMAIL]

Good morning!!

In the email below the AQMD has requested documentation listed below. I'm finding pdfs in our documentation, can you please forward the .csv files ASAP so I can forward to AQMD?

Thanks in advance!
Amy

Amy L. Harbin, AICP
Planner

Community Development | Planning Bureau
411 W. Ocean Blvd., 3rd Fl. | Long Beach, CA 90802
Office: 562.570.6872

I will be out of the office beginning April 22nd, returning on April 30th. I will have limited access to email.

From: Sahar Ghadimi <sghadimi@aqmd.gov>
Sent: Tuesday, April 09, 2024 10:04 AM
To: LBDS-EIR-Comments <LBDS-EIR-Comments@longbeach.gov>
Cc: Sam Wang <swang1@aqmd.gov>
Subject: Technical data request for the Cherry Avenue Industrial Building Project.

-EXTERNAL-

Dear Amy L. Harbin,

South Coast AQMD staff received a Notice of Availability of a Draft Environmental Impact Report for the Cherry Avenue Industrial Building Project (South Coast AQMD Control Number: LAC240319-02). Staff is currently in the process of reviewing the Draft EIR.

Please provide an electronic copy of any live modeling and emission calculation files (complete files, not summaries) that were used to quantify the air quality impacts from construction and/or operation of the Proposed Project as applicable, including the following:

CalEEMod, Input Files (.csv files).

Live EMFAC output files.

- Any emission calculation file(s) (live version of excel file(s); no PDF) used to calculate the Project's emission sources.
  (i.e., truck operations).

You may send the above-mentioned files via a Dropbox link in which they may be accessed and downloaded by South Coast AQMD staff. Without all files and supporting documentation, South Coast AQMD staff will be unable to complete a review of the air quality analyses in a timely manner. Any delays in providing all supporting documentation will require additional time for review beyond the end of the comment period.

If you have any questions regarding this request, please contact me.
Thank you.

Sincerely,

Sahar Ghadimi
Air Quality Specialist, CEQA IGR
Planning, Rule Development & Implementation
South Coast Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765
(909) 396-2392
sghadimi@aqmd.gov

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LETTER 3

LONG BEACH UNIFIED SCHOOL DISTRICT
Excellence & Equity

Business Services Department
Facilities Development & Planning
2425 Webster Avenue
Long Beach, CA 90810
Phone: (562) 997-7550
Fax: (562) 595-8644

April 5, 2024

VIA EMAIL

City of Long Beach Community Development Department
Planning Bureau
411 West Ocean Boulevard, 3rd Floor
Long Beach, California 90802
Attn: Amy L. Harbin
LBDS-EIR-Comments@longbeach.gov

RE: 5910 Cherry Avenue Industrial Building Project – Draft Environmental Impact Report

Dear Planning Bureau:

The Long Beach Unified School District ("District") is in receipt of the City of Long Beach's ("City") Notice of Availability of a Draft Environmental Impact Report for the Project located at 5910 Cherry Avenue. The District submits this letter to notify the City of its comments and concerns, with its close proximity to Harte and Gant Elementary Schools.

The project is a single, approximately 304,344 sf, concrete, tilt-up industrial building. The proposed building would be 51 feet high and surrounded by parking areas that would include 338 at-grade parking stalls and 79 at-grade truck parking stalls. Passenger vehicle parking would be situated in front of the proposed building, along Cherry Avenue, along the south side of the lot, and in the rear of the building in the northeast corner of the lot. The building would feature 44-truck high-dock doors along the south elevation facing the abutting commercial site. Approximately 10,066 sf of office space would be accommodated in the southwest corner of the building along Cherry Avenue on the first floor and mezzanine levels of the proposed building. To prepare for redevelopment of the parcel with the proposed project, the existing 8 buildings would be demolished and removed from the project site.

> *Concerned about heavy traffic at nearby schools during drop off/pick up times. How will this impact nearby schools? Is the City able to direct truck routes away from the schools?*
>
> *Please describe the types of activities and/or storage that will occur within the warehouse. It is unclear if the warehouse will house toxic chemicals for shipment for example.*

The District appreciates the opportunity to review and comment on this project and would welcome an opportunity to discuss this matter with the City of Long Beach and to work together on addressing our concerns.

Please feel free to contact me at 562-997-7550 or DMiranda1@lbschools.net.

Sincerely,

David Miranda
Executive Director

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LETTER 4

Yemi Alade

From: Amy Harbin <Amy.Harbin@longbeach.gov>
Sent: Thursday, April 18, 2024 4:55 PM
To: Rous, Heidi
Cc: Yemi Alade; Joe Williams; Rachel Hickenbottom
Subject: FW: 5910 Cherry Avenue -- Notice of Availability of a Draft EIR

[EXTERNAL EMAIL]

Good afternoon,

The City has decided to treat this as a comment letter on the DEIR. I have reached out to Colleen for a discussion, however that won't happen until the week I get back most likely.

Let me know if you have any questions.

Thank you,
Amy

Amy L. Harbin, AICP
Planner

Community Development | Planning Bureau
411 W. Ocean Blvd., 3rd Fl. | Long Beach, CA 90802
Office: 562.570.6872

I will be out of the office beginning April 22nd, returning on April 30th. I will have limited access to email.

From: Colleen Doan <CDoan@cityofsignalhill.org>
Sent: Monday, March 18, 2024 5:26 PM
To: Amy Harbin <Amy.Harbin@longbeach.gov>
Cc: Alejandro Sanchez-Lopez <Alejandro.Sanchez-Lopez@longbeach.gov>; Maryanne Cronin <Maryanne.Cronin@longbeach.gov>; Alison Spindler-Ruiz <Alison.Spindler-Ruiz@longbeach.gov>
Subject: RE: 5910 Cherry Avenue -- Notice of Availability of a Draft EIR

-EXTERNAL-

Thank you for sending Amy. Are there any concerns about truck traffic, noise, 24/7 activity etc. so close to residential neighborhoods? Is Cherry Ave. a truck route in LB?

Colleen T. Doan
Community Development Director

Signal Hill Community Development
2175 Cherry Ave. Signal Hill CA 90755
O: 562-989-7344 | cdoan@cityofsignalhill.org
www.cityofsignalhill.org

From: Amy Harbin <Amy.Harbin@longbeach.gov>
Sent: Friday, March 15, 2024 3:31 PM
To: Amy Harbin <Amy.Harbin@longbeach.gov>
Cc: Alejandro Sanchez-Lopez <Alejandro.Sanchez-Lopez@longbeach.gov>; Maryanne Cronin <Maryanne.Cronin@longbeach.gov>; Alison Spindler-Ruiz <Alison.Spindler-Ruiz@longbeach.gov>
Subject: 5910 Cherry Avenue -- Notice of Availability of a Draft EIR

Good Afternoon,

Please see the attached Notice of Availability of a Draft Environmental Impact Report for a proposed industrial building at 5910 Cherry Avenue.

The public review period runs from March 15, 2024 through April 29, 2024. Comments on the Draft EIR will be accepted through April 29, 2024 at 4:30pm.

Thank you and have a nice weekend.

Amy

Amy L. Harbin, AICP
Planner

Community Development | Planning Bureau
411 W. Ocean Blvd., 3rd Fl. | Long Beach, CA 90802
Office: 562.570.6872

LONGBEACH COMMUNITY DEVELOPMENT

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LETTER 5

April 16, 2024

TO: LBDS-EIR-Comments@longbeach.gov

ATTENTION: Amy L. Harbin, AICP, Planner

FROM: Long Beach Heritage

RE: Application #2304-11 (EIR 03-23)

In response to the EIR for the Cherry Avenue Industrial Building Project, Long Beach Heritage advocates for the retention and adaptive reuse of the former Atlantic Richfield Office Building at 5200 Cherry Avenue. Although somewhat altered over the years, this Mid-Century Modern structure is still a fine example of the work of Kenneth S. Wing (1901-1986), one of Long Beach's premier architects. Its horizontal façade clad with brick and glass, louvered sunshades, and wings joined at right angles are characteristic of Kenneth Wing's mature style. Perhaps it could be incorporated into the new warehouse that will be constructed at the site. The greenest design is the retention of old buildings, not their total demolition.

Louise Ivers, Vice President for Advocacy, Long Beach Heritage

livers@csudh.edu

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LETTER 6

Golden State Environmental Justice Alliance
Green Jobs & Clean Communities
P.O. Box 79222
Corona, CA 92877

May 20, 2024

Amy Harbin
Planner
City of Long Beach

Re: 5910 Cherry Avenue Industrial Building EIR (SCH NO. 2023100342)

Dear Ms. Harbin:

On behalf of the Golden State Environmental Justice Alliance ("GSEJA"), I am writing to you regarding the 5910 Cherry Avenue Industrial Building EIR (SCH NO. 2023100342) ("Project").

GSEJA is withdrawing its comment letter and opposition to the Project. The Project's developer has addressed GSEJA's concerns about environmental mitigation.

Joe Bourgeois
Executive Director

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LETTER 7

BLUM, COLLINS & HO LLP
ATTORNEYS AT LAW
AON CENTER
707 WILSHIRE BOULEVARD
SUITE 4880
LOS ANGELES, CALIFORNIA 90017
(213) 572-0400

April 29, 2024

Amy L. Harbin
AICP, Planner
City of Long Beach
Community Development Department Planning Bureau
411 West Ocean Boulevard, Third Floor
Long Beach, CA 90802

VIA EMAIL TO:
LBDS-EIR-Comments@LongBeach.gov

Subject: Comments on 5910 Cherry Avenue Industrial Building EIR (SCH NO. 2023100342)

Dear Ms. Harbin,

Thank you for the opportunity to comment on the Environmental Impact Report (EIR) for the proposed 5910 Cherry Avenue Industrial Building. Please accept and consider these comments on behalf of Golden State Environmental Justice Alliance. Also, Golden State Environmental Justice Alliance formally requests to be added to the public interest list regarding any subsequent environmental documents, public notices, public hearings, and notices of determination for this project. Send all communications to Golden State Environmental Justice Alliance P.O. Box 79222 Corona, CA 92877.

1.0 Summary

The project proposes the demolition of eight buildings and construction/operation of a single, approximately 304,344 square foot tilt-up light-industrial building with 10,066 square feet of office space and 294,278 square feet of warehouse space on an approximately 14 acre site. The building proposes 44 truck/trailer loading docks and the site provides 338 passenger car parking spaces and 79 truck/trailer parking spaces.

The following discretionary actions are necessary to implement the proposed project:

1. Approval of a Zoning change from (IG) General Industrial to (IL) Light Industrial.
2. CEQA Approval and certification of the EIR.
3. Site Plan Review for design review of the proposed building.
4. Demolition Permit to allow for the demolition of the existing buildings.

2.0 Project Description

The EIR does not include a floor plan, detailed site plan, or a conceptual grading plan. The basic components of a Planning Application include a detailed site plan, floor plan, conceptual grading plan, written narrative, and detailed elevations. The site plan provided in the EIR has been edited to remove pertinent information from public view. For example, it does not provide any detailed information such as parking requirements, floor area ratio, or earthwork quantity notes. Additionally, the EIR nor any figures within it include information about the required cut and/or fill material during the grading phase. Providing the grading plan and earthwork quantity notes is vital as it is necessary to calculate the truck hauling trips due to soil import/export during the grading phase of construction. A revised EIR must be prepared to include wholly accurate and adequate floor plan, site plan, grading plan, and project narrative for public review.

4.4 Air Quality, 4.7 Energy, and 4.9 Greenhouse Gas Emissions

Please refer to attachments from SWAPE for a complete technical commentary and analysis.

The EIR does not include for analysis relevant environmental justice issues in reviewing potential impacts, including cumulative impacts from the proposed project. This is especially significant as the surrounding community is highly burdened by pollution. According to CalEnviroScreen 4.0[1], CalEPA's screening tool that ranks each census tract in the state for pollution and socioeconomic vulnerability, the proposed project s census tract (6037570502) ranks in the 98th percentile for overall pollution burden, indicating that it ranks amongst the worse environmental factors compared to the rest of the state overall. The proposed project's census tract and surrounding community, including residences to the west, bears the impact of multiple sources of pollution and is more polluted than average on several pollution indicators measured by CalEnviroScreen. For example, the project census tract ranks in the 83rd percentile for particulate matter (PM) 2.5 burden, the 65th percentile for diesel particulate matter, and the 53rd percentile for traffic impacts. All of these environmental factors are typically attributed to heavy truck activity in the area. The very small particles of diesel PM can reach deep into the lung, where they can contribute to a range of health problems. These include irritation to the eyes, throat and nose, heart and lung disease, and lung cancer[2].

[1] CalEnviroScreen 4.0 https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40
[2] OEHHA Diesel Particulate Matter https://oehha.ca.gov/calenviroscreen/indicator/diesel-particulate-matter

The census tract also ranks in the 97th percentile for hazardous waste facility impacts. Hazardous waste generators and facilities contribute to the contamination of air, water and soil near waste generators and facilities can harm the environment as well as people[3].

Further, the census tract is a diverse community including 58% Hispanic, 5% African-American, and 21% Asian-American residents, whom are especially vulnerable to the impacts of pollution. The community has a high rate of low educational attainment, meaning 79% of the census tract residents over age 25 has not attained a high school diploma. The community also has a high rate of poverty, meaning 67% of the households in the census tract have a total income before taxes that is less than the poverty level. Income can affect health when people cannot afford healthy living and working conditions, nutritious food and necessary medical care[4]. Poor communities are often located in areas with high levels of pollution[5]. Poverty can cause stress that weakens the immune system and causes people to become ill from pollution[6]. Living in poverty is also an indication that residents may lack health insurance or access to medical care. Medical care is vital for this census tract as it ranks in the 89th percentile for incidence of cardiovascular disease and 91st percentile for incidence of asthma.

Additionally, the project census tract and census tracts adjacent to the project site (6037570100 (east), 6037570203 (north), 6037570501 (west), and 6037570602 (south)) are identified as SB 535 Disadvantaged Communities[7]. This indicates that cumulative impacts of development and environmental impacts in the immediate vicinity are disproportionately impacting this community. The negative environmental, health, and quality of life impacts resulting form a saturation of the warehousing and logistics industry in the community have become distinctly inequitable. A revised EIR must be prepared to include the specific analysis of each environmental impact on the Disadvantaged Community, including cumulative analysis and irreversible environmental effects.

The State of California lists three approved compliance modeling softwares[8] for non-residential buildings: CBECC-Com, EnergyPro, and IES VE. CalEEMod is not listed as an approved software. The CalEEMod modeling does not comply with the 2022 Building Energy Efficiency Standards and under-reports the project s significant Energy impacts and fuel consumption to the

[3] OEHHA Hazardous Waste Generators and Facilities https://oehha.ca.gov/calenviroscreen/indicator/hazardous-waste-generators-and-facilities
[4] OEHHA Poverty https://oehha.ca.gov/calenviroscreen/indicator/poverty
[5] Ibid.
[6] Ibid.
[7] OEHHA SB 535 Census Tracts https://oehha.ca.gov/calenviroscreen/sb535
[8] California Energy Commission 2022 Energy Code Compliance Software https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency-1

public and decision makers. Since the EIR did not accurately or adequately model the energy impacts in compliance with Title 24, a finding of significance must be made. A revised EIR with modeling using one of the approved software types must be prepared and circulated for public review in order to adequately analyze the project s significant environmental impacts. This is vital as the EIR utilizes CalEEMod as a source in its methodology and analysis, which is clearly not an approved software.

4.12 Land Use and Planning

The EIR does not discuss or analyze the project's compliance with its General Plan land use designation of Neo-Industrial PlaceType[9]. Within the Land Use Element of the General Plan, the Neo-Industrial PlaceType provides several specifics, including those for the Neo-Industrial PlaceType designation within North Long Beach (applicable to the project site as shown in Map LU-16: Neo-Industrial PlaceType Map):

"The North Long Beach Neo-Industrial PlaceType areas do not offer the same opportunities for building reuse. In North Long Beach, Neo-Industrial uses do not include a residential or live/work component. Rather, Neo-Industrial uses are limited strictly to manufacturing and office uses with an allowance for retail sales and commercial businesses that support the primary Neo-Industrial endeavors. Here, Neo-Industrial businesses are required to use the office space as a buffer to adjacent residential uses, and manufacturing operations must be located away from residences."

The EIR describes several "Tenant Use Options," including several different types of warehousing options. It is clear that the General Plan designation does not permit those uses in the North Long Beach area Neo-Industrial PlaceType, and strictly permits only manufacturing and office uses. The General Plan further states that, "The Neo-Industrial PlaceType is used as a buffer between existing industrial and residential neighborhoods. Where new developments are inserted in the Neo-Industrial PlaceType, office and commercial uses rather than industrial and manufacturing operations, should abut residential neighbors." Residential neighbors are located to the west from the project site, indicating that only office uses should face that direction.

Additionally, the General Plan states that, "Where new development is adjacent to residential uses, buildings must step down to match permitted residential building heights. Development intensity must also be graduated from lower intensity near residential neighbors to moderate intensity near wholly industrial uses." The proposed building is 51 feet in height and is not proposed to step down to match permitted residential building heights. Overall, the EIR has not considered the above listed items described for the Neo-Industrial PlaceType and a revised EIR must be prepared in order to provide an adequate and accurate environmental analysis. The project does not comply

[9] https://www.longbeach.gov/globalassets/lbcd/media-library/documents/planning/advance/lueude/land-use-element-final-adopted-december-2019

with the Neo-Industrial PlaceType requirements (including those specified for the North Long Beach area) and a finding of significance must be made as part of a revised EIR. Additionally, all areas of analysis in the EIR must be updated to remove statements and justifications for LTS impacts that the project is consistent with the General Plan.

Table 4.12-2: Project Compatibility with SCAG 2020-2045 RTP/SCS Connect SoCal Goals finds that the project is consistent with the goals of Connect SoCal, resulting in less than significant impacts. In finding consistency with SCAG's goals, the EIR does not provide any meaningful evidence to support this conclusion, in violation of CEQA's requirements for meaningful disclosure. Due to errors in modeling and modeling without supporting evidence, as noted throughout this comment letter and attachments, and the EIR's determination that the project will have significant and unavoidable impacts to Transportation, the proposed project is directly inconsistent with Goal 5 to reduce greenhouse gas emissions and improve air quality, Goal 6 to support healthy and equitable communities, and Goal 7 to adapt to a changing climate. The EIR must be revised to include finding of significance due to inconsistency with the RTP/SCS.

4.18 Transportation

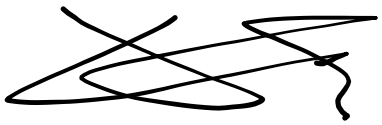
The EIR has not adequately analyzed the project's potential to substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses; or the project's potential to result in inadequate emergency access. There are no exhibits adequately depicting the available maneuvering and queueing space for trucks/trailers at the intersection of the project driveways and the adjacent streets. There are also no exhibits adequately depicting the onsite turning radius available for trucks maneuvering throughout the site. This does not comply with CEQA's requirements for adequate informational documents and meaningful disclosure (CEQA § 15121 and 21003(b)). The EIR states that, "All circulation improvements would be constructed as approved by the City s Public Works Department." A similar statement is made regarding emergency access, "LBFD would review the Project for access requirements concerning minimum roadway width, access roads, fire lanes, signage, access devices and gates, and access walkways, among other requirements, which would enhance emergency access to the Project site," and sight distance, "Additionally, sight distance at each project access point should be reviewed with respect to standard California Department of Transportation (Caltrans) and City of Long Beach sight distance standards at the time of preparation of final grading, landscape, and street improvement plan." Deferring this environmental analysis required by CEQA to the construction permitting phase is improper mitigation and does not comply with CEQA's requirement for meaningful disclosure and adequate informational documents. A revised EIR must be prepared to include truck turning templates overlaid on the Site Plan for review, analysis, and comment by the public and decision makers in order to provide an adequate and accurate environmental analysis.

Further, the EIR has underreported the quantity VMT generated by the proposed project operations. The operational nature of industrial/warehouse uses involves high rates of truck/trailer/delivery van VMT due to traveling from large import hubs to regional distribution centers to smaller industrial parks and then to their final delivery destinations. Once employees arrive at work at the proposed project, they will conduct their jobs by driving delivery vans across the region as part of the daily operations as a fulfillment center, which will drastically increase project-generated VMT. The project's truck/trailer and delivery van activity is unable to utilize public transit or active transportation and it is misleading to the public and decision makers to exclude this activity from VMT analysis. The project's total operational VMT generated is not consistent with the significance threshold and legislative intent of SB 743 to reduce greenhouse gas emissions by reducing VMT. A revised EIR must be prepared to reflect a quantified VMT analysis that includes all truck/trailer and delivery van activity.

5.0 Alternatives

The EIR is required to evaluate a reasonable range of alternatives to the proposed project which will avoid or substantially lessen any of the significant effects of the project (CEQA § 15126.6.) The alternatives chosen for analysis include the CEQA required "No Project" alternative and four others. However, not all of the proposed alternatives comply with the requirements of the Neo-Industrial PlaceType within the North Long Beach area. The EIR does not evaluate a reasonable range of alternatives as only one alternative (Alternative 3: Adaptive Reuse of Existing Buildings – Office) is permitted by the Neo-Industrial PlaceType within the North Long Beach area. The EIR must be revised to include analysis of a reasonable range of alternatives and foster informed decision making (CEQA § 15126.6). This could include alternatives such as development of the site with a mixed-use project that provides affordable housing and local-serving commercial uses that may reduce VMT, GHG emissions, and improve Air Quality.

Sincerely,



Gary Ho
Blum, Collins & Ho LLP

Attachments:
1. SWAPE Technical Analysis

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

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April 24, 2024

Gary Ho
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707 Wilshire Blvd, Ste. 4880
Los Angeles, CA 90017

Subject: Comments on the 5910 Cherry Avenue Industrial Building Project (SCH No. 2023100342)

Dear Mr. Ho,

We have reviewed the March 2024 Draft Environmental Impact Report ("DEIR") for the 5910 Cherry Avenue Industrial Building Project ("Project") located in the City of Long Beach ("City"). The Project proposes to demolish an existing industrial development and office facility and construct a 304,344-square-foot ("SF") industrial warehouse and 417 parking stalls on the 14.16-acre site.

Our review concludes that the DEIR 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 may be underestimated and inadequately addressed. A revised Environmental Impact Report ("EIR") should be prepared to adequately assess and mitigate the potential air quality, health risk, and greenhouse gas impacts that the project may have on the environment.

Air Quality

Failure to Provide Complete CalEEMod Output Files

Land use development projects under the California Environmental Quality Act ("CEQA") typically evaluate air quality impacts and calculate potential criteria air pollutant emissions using the California Emissions Estimator Model ("CalEEMod"). [1] CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user

[1] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide.

can change the default values and input project-specific values, but CEQA requires that such 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 used in calculating the Project's air pollutant emissions and demonstrate which default values are changed. Justifications are provided for the selected values.

According to the Air Quality Impact Analysis, included as Appendix B to the DEIR, CalEEMod Version 2022.1 is relied upon to estimate Project emissions (DEIR, p. 4.4-26). However, this poses a problem, as the currently available version of CalEEMod 2022.1 is described as a "soft release" which fails to provide complete output files.[2] Specifically, the "User Changes to Default Data" table no longer provides the quantitative counterparts to the changes to the default values (see excerpt below) (Appendix B, pp. 168, 169):

8. User Changes to Default Data

Screen	Justification
Land Use	Total Project area is 14.16 acres
Construction: Construction Phases	Construction schedule based on information provided by the Applicant.
Construction: Off-Road Equipment	Equipment based on information provided by the Client
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Demolition, Site Preparation, Grading, and Building Construction Hauling trip length during grading adjusted to the average distance (56.9 mi) for material hauled from the Project site to Chiquita Canyon Landfill and Sunshine Canyon Landfill.
Construction: Architectural Coatings	Rule 1113

However, previous CalEEMod Versions, such as 2020.4.0, include the specific numeric changes to the model's default values (see example excerpt below):

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	230.00	167.00
tblConstructionPhase	PhaseEndDate	11/22/2023	8/25/2023
tblConstructionPhase	PhaseEndDate	9/27/2023	6/30/2023
tblConstructionPhase	PhaseEndDate	10/25/2023	7/28/2023
tblConstructionPhase	PhaseStartDate	10/26/2023	7/29/2023
tblConstructionPhase	PhaseStartDate	9/28/2023	7/1/2023
tblLandUse	LandUseSquareFeet	160,000.00	160,371.00
tblLandUse	LandUseSquareFeet	119,000.00	41,155.00
tblLandUse	LotAcreage	3.67	3.68
tblLandUse	LotAcreage	2.73	2.74

The output files associated with CalEEMod Version 2022.1 fail to present the exact parameters used to calculate Project emissions. To remedy this issue, the DEIR should have provided access to the model's ".JSON" output files, which allow third parties to review the model's revised input parameters.[3] Without access to the complete output files, including the specific numeric changes to the default values, we

[2] "CalEEMod California Emissions Estimator Model Soft Release." California Air Pollution Control Officers Association (CAPCOA), 2022, *available at:* https://caleemod.com/.
[3] "Video Tutorials for CalEEMod Version 2022.1." California Air Pollution Control Officers Association (CAPCOA), May 2022, *available at:* https://www.caleemod.com/tutorials.

cannot verify that the DEIR's air modeling and subsequent analysis is an accurate reflection of the proposed Project. As a result, a revised EIR should be prepared to include an updated air quality analysis that correctly provides the complete output files for CalEEMod Version 2022.1, or includes an updated air model using an older release of CalEEMod.[4]

Unsubstantiated Input Parameters Used to Estimate Project Emissions

As previously discussed, the DEIR relies on CalEEMod Version 2022.1 to estimate the Project's air quality emissions and fails to provide the complete output files required to adequately evaluate model's analysis (p. 4.4-26). While the DEIR lists seven land use options for tenant uses, the South Coast Air Quality Management District ("SCAQMD") states that "CEQA requires the use of 'conservative analysis' to afford 'fullest possible protection of the environment.'" Therefore, we relied on Tenant Use Option 5, which is the most conservative proposed model including 25% of manufacturing space and 75% of warehouse space.[5] Regardless, when reviewing the Project's CalEEMod output files, we were able to identify several model inputs that are inconsistent with information disclosed in the DEIR. The Project's construction and operational emissions consequently may be underestimated. A revised EIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that construction and operation of the Project will have on local and regional air quality.

Unsubstantiated Changes to Architectural Coating Emission Factors

Review of the CalEEMod output files demonstrates that the "Cherry Avenue Warehouse (Construction)" model includes changes to the default architectural coating emission factors (see excerpt below) (Appendix B, pp. 169).

8. User Changes to Default Data

Screen	Justification
Land Use	Total Project area is 14.16 acres
Construction: Construction Phases	Construction schedule based on information provided by the Applicant.
Construction: Off-Road Equipment	Equipment based on information provided by the Client
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Demolition, Site Preparation, Grading, and Building Construction Hauling trip length during grading adjusted to the average distance (56.9 mi) for material hauled from the Project site to Chiquita Canyon Landfill and Sunshine Canyon Landfill.
Construction: Architectural Coatings	Rule 1113

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[6] As demonstrated above in the "User Changes to Default Data" table, the justification provided for these changes is:

> "Rule 1113" (Appendix B, pp. 169).

[4] "CalEEMod Version 2020.4.0." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* http://www.aqmd.gov/caleemod/download-model.

[5] "Warehouse Truck Trip Study Data Results and Usage" Presentation. SCAQMD Inland Empire Logistics Council, June 2014, *available at*: 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

[6] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 1, 14.

The CalEEMod output files list SCAQMD Rule 1113 as a justification for the changes made to architectural coatings values in the model. However, the model's reductions to the architectural coating emission factors remain unsubstantiated for two reasons.

First, 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 volatile organic compound ("VOC") limits (grams of VOC per liter of coating) for 57 different coating categories.[7] 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 DEIR fails 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 coating emission factors.

Second, as previously discussed, the output files for CalEEMod 2022.1 do not present the numeric changes to any model defaults. Upon further review of the output files, Table 5.5 contains the only mention of architectural coatings (see excerpt below) (Appendix B, pp. 160):

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	456,516	152,172	18,757

However, as demonstrated above, Table 5.5 only provides the *square footage* of area to be coated. Since the output files fail to demonstrate the architectural coating *emission factors* that the model relies on, we cannot verify that the values included in the model are accurate. As previously stated, the DEIR should have provided access to the model's ".JSON" output files, which allow third parties to review the model's revised input parameters.[8]

These unsubstantiated reductions present an issue, as CalEEMod uses the architectural coating emission factors to calculate the Project's reactive VOC emissions.[9] By including unsubstantiated reductions to the default architectural coating emission factors, the model may underestimate the Project's construction-related VOC emissions and should not be relied upon to determine Project significance.

Underestimated Operational Vehicle Trips

According to the Traffic Analyses ("TA") provided as Appendix M to the DEIR, the Project is expected to generate 756 daily vehicle trips for Tenant Use Option 5 (see excerpt below) (pp. 18, Table A-1).

[7] "SCAQMD Rule 1113 Advisory Notice." SCAQMD, February 2016, *available at:* http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/r1113.pdf?sfvrsn=24, p. 1113-14, Table of Standards 1.

[8] "Video Tutorials for CalEEMod Version 2022.1." California Air Pollution Control Officers Association (CAPCOA), May 2022, *available at:* https://www.caleemod.com/tutorials.

[9] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 35, 40.

Alternative 5: 25% Manufacturing & 75% Warehousing							
Passenger Cars	65	18	83	24	64	88	582
2-Axle Trucks	1	0	1	1	1	2	30
3-Axle Trucks	1	1	2	1	1	2	36
4+-Axle Trucks	2	2	4	3	3	6	108
Trucks	4	3	7	5	5	10	174
Total	**69**	**21**	**90**	**29**	**69**	**98**	**756**
Variance	**-88**	**-29**	**-117**	**-41**	**-86**	**-127**	**-692**

The Project's model should have included trip rates that reflect the estimated number of average daily vehicle trips. However, review of the CalEEMod output files demonstrates that the "Cherry Avenue Warehouse (Operations) Option 5" model includes only 648 weekday total daily vehicle trips (see excerpt below) (Appendix B, pp. 106).[10]

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Refrigerated Warehouse-No Rail	418	36.4	167	119,593	4,598	401	1,839	1,315,524
User Defined Industrial	230	20.0	92.0	65,804	8,740	761	3,496	2,500,549
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

The "Cherry Avenue Warehouse (Operations) Option 5" total weekday vehicle trips are each underestimated by 108-trips.[11] Consequently, the trip rates inputted into the model are underestimated and inconsistent with the information provided by the TA.

These inconsistencies present an issue, as CalEEMod uses the operational vehicle trip rates to calculate the emissions associated with the operational on-road vehicles.[12] By including underestimated operational daily vehicle trips, the model underestimates the Project's mobile-source operational emissions and should not be relied upon to determine Project significance.

Unsubstantiated Changes to Operational Fleet Mix Values

Review of the CalEEMod output files demonstrates that the "Cherry Avenue Warehouse (Operations) Option 5" model includes changes to the default operational vehicle fleet mix percentages (see excerpt below) (Appendix B, 369).

[10] Calculated: 418 "Refrigerated Warehouse-No Rail" daily trips + 230 "User Defined Industrial" daily trips = 648 total daily weekday trips.
[11] Calculated: 756 proposed daily weekday trips – 648 modeled daily weekday, Saturday, and Sunday trips = 108 underestimated daily weekday trips.
[12] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 36.

8. User Changes to Default Data

Screen	Justification
Land Use	Total Project area is 14.16 acres
Operations: Vehicle Data	Trip characteristics based on information provided in the Traffic analysis
Operations: Fleet Mix	Passenger Car Mix estimated based on the CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, & MCY). Truck Mix based on information in the Traffic analysis
Operations: Energy Use	Project energy demand will be offset with solar. Project will not utilize natural gas.
Operations: Refrigerants	As of 1 January 2022, new commercial refrigeration equipment may not use refrigerants with a GWP of 150 or greater. Further, R-404A (the CalEEMod default) is unacceptable for new supermarket and cold storage systems as of 1 January 2019 and 2023, respectively.

As previously stated, the CalEEMod User's Guide requires any changes to model defaults be justified.[13] As demonstrated above in the "User Changes to Default Data" table, the justification provided for these changes is:

> "Passenger Car Mix estimated based on the CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, & MCY). Truck Mix based on information in the Traffic analysis" (Appendix B, 369).

The DEIR includes the following Project fleet mix tables for passenger cars and trucks, respectively (see excerpts below) (Appendix B; p. 55, 56; Table 3-6, 3-7).

TABLE 3-6: PASSENGER CAR FLEET MIX

Scenario	Land Use	% Vehicle Type				
		LDA	LDT1	LDT2	MDV	MCY
Option 1	Manufacturing	53.61%	4.65%	24.60%	14.87%	2.26%
Option 2	General Light Industrial					
Option 3	Warehouse					
Option 4	High-Cube Fulfillment (Non-Sort)					
Option 5	High-Cube Cold Storage					
Option 6	Manufacturing					
	Warehouse					
Option 7	Manufacturing					
	High-Cube Transload					

Note: The Project-specific passenger car fleet mix used in this analysis is based on a proportional split utilizing the default CalEEMod percentages assigned to LDA, LDT1, LDT2, and MDV vehicle types.

[13] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 1, 14.

TABLE 3-7: TRUCK FLEET MIX

Scenario	Land Use	% Vehicle Type			
		LHDT1	LHDT2	MHDT	HHDT
Option 1	Manufacturing	13.92%	3.48%	20.29%	62.32%
Option 2	General Light Industrial	14.36%	3.59%	20.51%	61.54%
Option 3	Warehouse	13.77%	3.44%	20.43%	62.37%
Option 4	High-Cube Fulfillment (Non-Sort)	13.34%	3.33%	22.22%	61.11%
Option 5	High-Cube Cold Storage	27.83%	6.95%	11.30%	53.91%
Option 6	Manufacturing	13.34%	3.33%	22.22%	61.11%
	Warehouse	13.92%	3.48%	20.29%	62.32%
Option 7	Manufacturing	13.34%	3.33%	22.22%	61.11%
	High-Cube Transload	15.39%	3.84%	19.23%	61.54%

Note: Project-specific truck fleet mix is based on the number of trips generated by each truck type (LHDT1, LHDT2, MHDT, and HHDT) relative to the total number of truck trips.

However, the changes to the model's operational fleet mix values remain unsubstantiated. As previously discussed, the output files for CalEEMod 2022.1 do not present the numeric changes to any model defaults. Upon further review of the output files, changes to fleet mix percentages are not mentioned outside of the "User Changes to Default Data" table. Until the DEIR verifies the breakdown of heavy-heavy duty ("HHD"), medium-heavy duty ("MHD"), light-heavy duty ("LHD1, LDH2"), trucks used by the Project, we cannot verify that the values included in the model are accurate.[14]

These unsubstantiated changes present an issue, as CalEEMod uses operational vehicle fleet mix percentages to calculate the Project's operational emissions associated with on-road vehicles.[15] By including several unsubstantiated changes to the default operational vehicle fleet mix percentages, the model may underestimate the Project's mobile-source operational emissions and should not be relied upon to determine Project significance.

Disproportionate Health Risk Impacts of Warehouses on Surrounding Communities

Upon review of the DEIR and associated documents, we have determined that the development of the proposed Project may contribute to the disproportionate health risk impacts that warehouses pose to community members living, working, and going to school within the immediate area of the Project site. According to SCAQMD:

[14] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 38.
[15] "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 36.

> "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."[16]

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.[17] 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 facilities."[18] 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.'"[19]

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 98th percentile of most polluted census tracts in the State (see excerpt below).[20]

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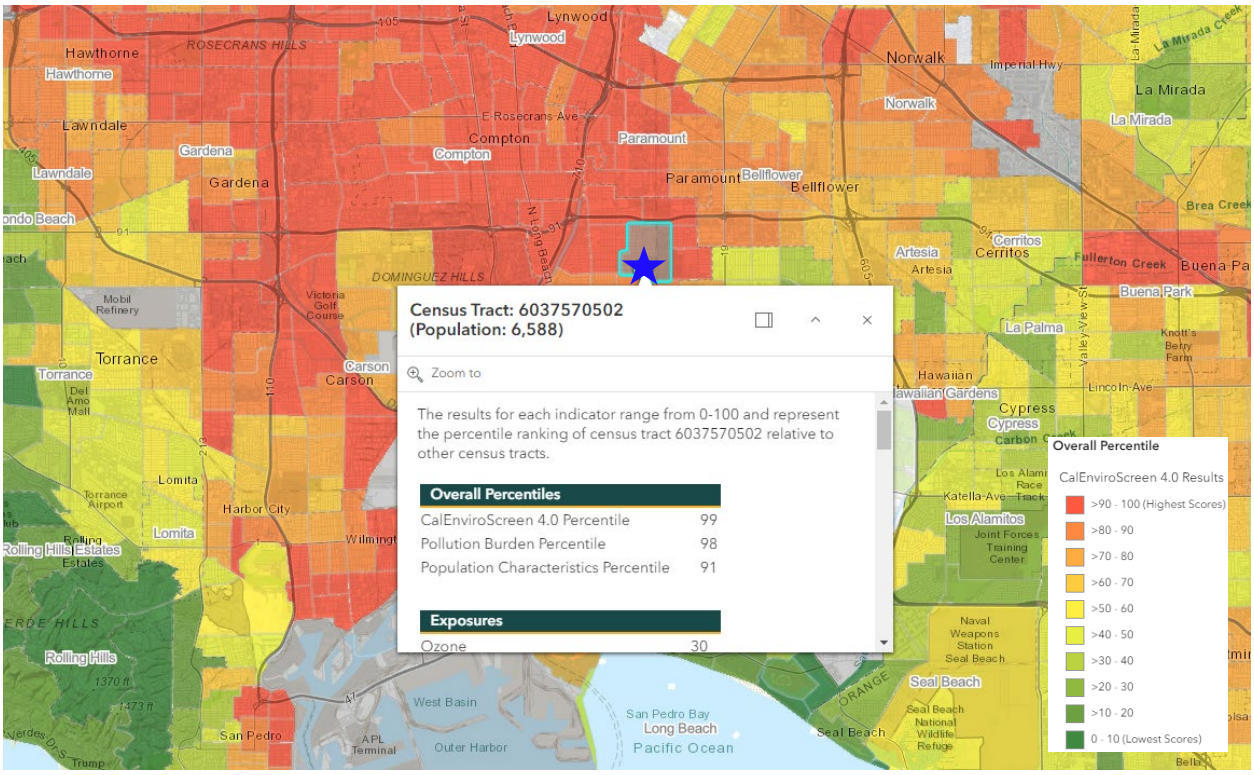
[16] "South Coast AQMD Governing Board Adopts Warehouse Indirect Source Rule." SCAQMD, May 2021, *available at:* http://www.aqmd.gov/docs/default-source/news-archive/2021/board-adopts-waisr-may7-2021.pdf?sfvrsn=9.

[17] "Southern California warehouse boom a huge source of pollution. Regulators are fighting back." Los Angeles Times, May 2021, *available at:* https://www.latimes.com/california/story/2021-05-05/air-quality-officials-target-warehouses-bid-to-curb-health-damaging-truck-pollution.

[18] "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.

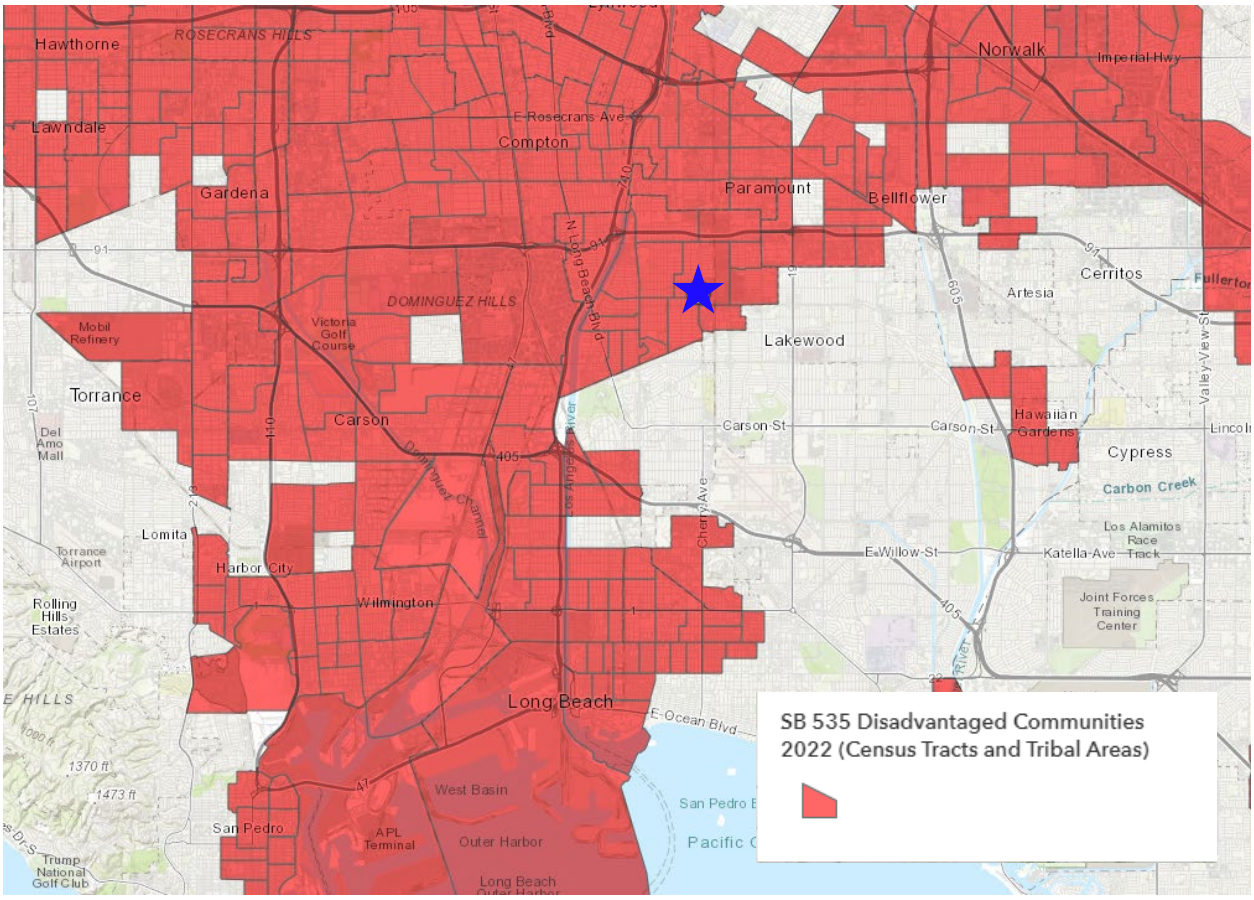
[19] "Warehouses, Pollution, and Social Disparities: An analytical view of the logistics industry's impacts on environmental justice communities across Southern California." People's Collective for Environmental Justice, April 2021, *available at:* https://earthjustice.org/sites/default/files/files/warehouse_research_report_4.15.2021.pdf, p. 4.

[20] "CalEnviroScreen 4.0." California Office of Environmental Health Hazard Assessment (OEHHA), October 2021, *available at:* https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40.



According to CalEnviroScreen's SB 535 Disadvantaged Communities Map, the Project site is located in a designated disadvantaged community (see excerpt below).[21]

[21] "SB 535 Disadvantaged Communities (2022 Update)." California Environmental Protection Agency, *available at:* https://experience.arcgis.com/experience/1c21c53da8de48f1b946f3402fbae55c/page/SB-535-Disadvantaged-Communities/

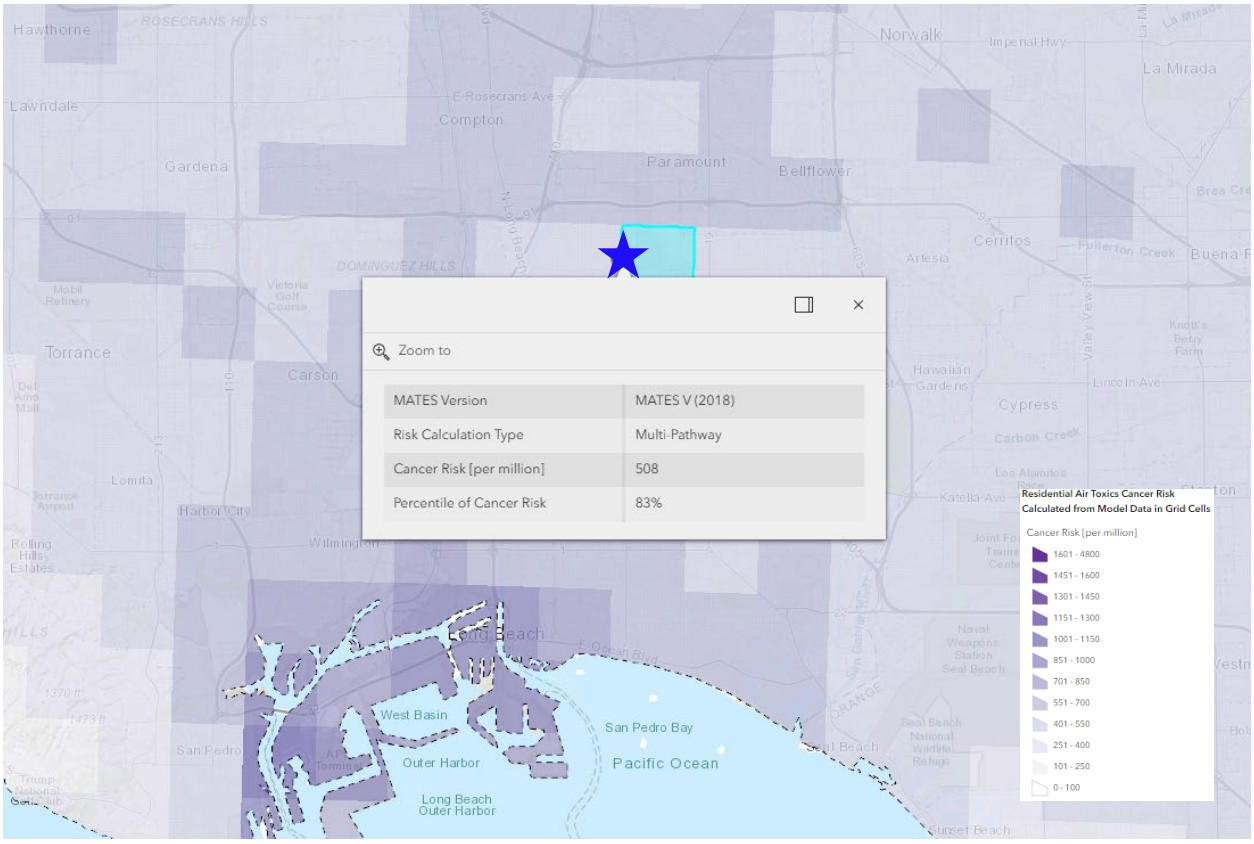


SB 535 provides funding for development projects that provide a benefit to disadvantaged communities. CalEPA has been given the responsibility for identifying those communities based on "geographic, socioeconomic, public health, and environmental hazard criteria."[22] As the Project site is located in a designated disadvantaged community, and Project's census tract already exhibits a high cancer risk, development of the proposed Project would contribute to the disproportionate impact warehouses are posing to the health conditions of nearby residents.

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 83th percentile of highest cancer risks in the South Coast Air Basin, with a cancer risk of 508 in one million (see excerpt below).[23]

[22] "Final Designation of Disadvantaged Communities." California Environmental Protection Agency, *available at:* https://calepa.ca.gov/wp-content/uploads/sites/6/2022/05/Updated-Disadvantaged-Communities-Designation-DAC-May-2022-Eng.a.hp_-1.pdf?emrc=e05e10.

[23] "Residential Air Toxics Cancer Risk Calculated from Model Data in Grid Cells." MATES V, 2018, *available at:* https://experience.arcgis.com/experience/79d3b6304912414bb21ebdde80100b23/page/Main-Page/?views=Click-tabs-for-other-data%2CGridded-Cancer-Risk; see also: "MATES V Multiple Air Toxics Exposure Study." SCAQMD, *available at:* http://www.aqmd.gov/home/air-quality/air-quality-studies/health-studies/mates-v.



Therefore, development of the proposed warehouse would contribute to the disproportionate impact warehouses are posing to 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.[24] 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.[25] 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."[26]

[24] "State of the Air 2022." American Lung Association, April 2022, *available at:* https://www.lung.org/research/sota/key-findings/most-polluted-places.
[25] "High Ozone Days." American Lung Association, 2022, *available at:* https://www.lung.org/research/sota/city-rankings/states/california.
[26] "Health Effects of Ozone Pollution." U.S. EPA, May 2021, *available at:* https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution.

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."[27]

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.[28] 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.[29] Regarding the proposed Project itself, the DEIR states:

> "The nearest school is Harte Elementary School (Location R9), located approximately 1,002 feet southwest of the Project site." (p. 4.4-43).

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[27] "Children and Air Pollution." California Air Resources Board (CARB), *available at:* https://ww2.arb.ca.gov/resources/documents/children-and-air-pollution.

[28] "Air pollution puts children at higher risk of disease in adulthood, according to Stanford researchers and others." Stanford, February 2021, *available at:* https://news.stanford.edu/2021/02/22/air-pollution-impacts-childrens-health/.

[29] "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 may pose 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 contribute to the detrimental short-term and long-term health impacts that warehouses pose on local children if approved.

A revised EIR should be prepared to evaluate the proposed Project's contribution to the disproportionate impacts that warehouses are posing on the community adjacent to the Project site. The EIR should include an analysis of the impact on children and people of color who live and attend school in the surrounding area. Finally, 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 EIR should also 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.

Diesel Particulate Matter Emissions Inadequately Evaluated

The DEIR concludes that the proposed Project would result in a less-than-significant health risk impact based on a quantified construction and operational HRA, as detailed in the Mobile Health Risk Assessment ("HRA Report"), provided as Appendix C to the DEIR. Specifically, the DEIR estimates that the maximum cancer risk posed to nearby, existing residential sensitive receptors associated with construction and operation would be 8.97 in one million, which would not exceed the SCAQMD significance threshold of 10 in one million (see excerpt below) (p. 6, Table ES-3).

TABLE ES-3: SUMMARY OF CONSTRUCTION AND OPERATIONAL CANCER AND NON-CANCER RISKS

Scenario	Time Period	Location	Maximum Lifetime Cancer Risk (Risk per Million)	Significance Threshold (Risk per Million)	Exceeds Significance Threshold
Tenant Use Option 1	30 Year Exposure	Maximum Exposed Sensitive Receptor (Location R6)	4.16	10	NO
Tenant Use Option 5	30 Year Exposure	Maximum Exposed Sensitive Receptor (Location R6)	8.97	10	NO
Scenario	**Time Period**	**Location**	**Maximum Hazard Index**	**Significance Threshold**	**Exceeds Significance Threshold**
Tenant Use Option 1	Annual Average	Maximum Exposed Sensitive Receptor (Location R6)	<0.01	1.0	NO
Tenant Use Option 5	Annual Average	Maximum Exposed Sensitive Receptor (Location R6)	<0.01	1.0	NO

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

First, the DEIR's HRAs are unreliable, as they rely upon emissions estimates from a flawed air model, as discussed above in the section titled "Unsubstantiated Input Parameters Used to Estimate Project Emissions." As such, the HRAs are based on potentially underestimated DPM concentrations to calculate the health risk associated with Project construction. As a result, the DEIR's HRAs and resulting cancer risk should not be relied upon to determine Project significance.

Second, the DEIR's operational HRA underestimates the Fraction of Time At Home ("FAH") values for the third trimester, infant, and child receptors. Specifically, the HRA Report utilizes an 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) (Appendix C, p. 27).

TABLE 2-8: EXPOSURE ASSUMPTIONS FOR INDIVIDUAL CANCER RISK (30 YEAR RESIDENTIAL)

Age	Daily Breathing Rate (L/kg-day)	Age Specific Factor	Exposure Duration (years)	Fraction of Time at Home	Exposure Frequency (days/year)	Exposure Time (hours/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."[30]

Per SCAQMD guidance, the HRA Report should have used an FAH of 1 for the third trimester, infant, and child receptors. By relying on incorrect FAH values, the DEIR underestimates the cancer risk posed to nearby, existing sensitive receptors as a result of the Project operation. A revised HRA should be prepared that accurately accounts for FAH values, and consequently assesses the health risk impacts the Project poses to nearby sensitive receptors.

[30] "Risk Assessment Procedures." SCAQMD, August 2017, available at: http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1401/riskassessmentprocedures_2017_080717.pdf, p. 7.

Greenhouse Gas

Failure to Adequately Evaluate Greenhouse Gas Impacts

The DEIR estimates that the Tenant Use Option 5 for the Project would generate net annual greenhouse gas ("GHG") emissions of 5,748.81 metric tons of carbon dioxide equivalents per year ("MT CO_2e/year") (see excerpt below) (p. 61, Table 3-11).

TABLE 3-11: PROJECT GHG EMISSIONS – TENANT USE OPTION 5

Emission Source	Emissions (MT/yr)				
	CO_2	CH_4	N_2O	R	Total CO_2e
Annual construction-related emissions amortized over 30 years	42.08	0.00	0.00	0.02	42.90
Mobile Source	3,346.00	0.13	0.42	5.31	3,479.00
Area Source	6.17	0	0	0	6.19
Stationary Source	34.30	0	0	0	34.40
Water	98.10	2.30	0.06	0	172.00
Waste	25.50	2.55	0	0	89.30
Refrigeration	0	0	0	51.40	51.40
TRU Source					1,826.24
Cargo Handling Equipment					47.38
Project CO_2e (All Sources)	5,748.81				
Existing	*944.67*				
Total CO_2e (All Sources)	4,804.14				

Source: CalEEMod output, See Appendix 3.3 for detailed model outputs.

The DEIR relies on a qualitative analysis of GHG emissions, concluding:

> "The CAP Checklist will be included in the respective Project or plan conditions of approval. Therefore, as the Project would be in conformance with the CAP, as evidenced by the CalEEMod model outputs summarized in Impact GHG-1 and the CAP Checklist included in Appendix I, the proposed Project would be consistent with applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions. Impacts are considered less than significant" (p. 4.9-27).

As demonstrated above, the DEIR claims that since the Project would be consistent with the Long Beach Climate Action Plan ("CAP"), the Project would result in a less-than-significant GHG impact. However, the DEIR's analysis, as well as the subsequent less-than-significant impact conclusion, is incorrect, as the DEIR fails to compare the Project's GHG emissions to a quantitative threshold whatsoever.

In an effort to quantitatively evaluate the Project's GHG emissions, we compared the Project's GHG emissions, as provided above by the DEIR, to the SCAQMD interim bright-line threshold of 3,000 MT CO_2e/year for the year 2020.[31] The guidance that provided the 3,000 MT CO_2e/year threshold,

[31] "Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #15." SCAQMD, September 2010, *available at:* 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, p. 2.

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 and required California to reduce GHG emissions to 1990 levels by 2020.[32]

The DEIR's CalEEMod output files disclose the Project's emissions for Tenant Use Option 5, which include approximately 5,748.81 MT CO_2e/year of annual construction and operational emissions (sum of area-, energy-, mobile-, waste-, and water-related emissions and amortized construction-related emissions) (see table below).

DEIR Annual Greenhouse Gas Emissions	
Project Phase	**Proposed Project** (MT CO_2e/year)
Total Net Annual GHG Emissions	**5,748.81**
SCAQMD Bright-Line Threshold	3,000
Exceeds?	***Yes***

As demonstrated above, the Project's estimated annual GHG emissions exceed the SCAQMD threshold of 3,000 MT CO_2e/year, resulting in a significant impact.

Furthermore, we compared the Project's GHG emissions to the SCAQMD 2035 service population efficiency target of metric tons of carbon dioxide equivalents per service population per year ("MT CO_2e/SP/year"), which was calculated by applying a 40% reduction to the 2020 targets.[33] 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."[34] According to the DEIR, the Project documents assume a projected 654 employees (p. 4.20-9). As the proposed Project does not include any residential land uses, we calculated a SP of 654 people.[35] When dividing the Project's net annual GHG emissions by a SP of 654 people, we find that the Project would emit approximately 8.79 MT CO_2e/SP/year (see table below).[36]

DEIR Annual Greenhouse Gas Emissions	
Project Phase	**Proposed Project**
Total Net Annual GHG Emissions	5,748.81

[32] HEALTH & SAFETY CODE 38550, *available at:* https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=HSC&sectionNum=38550.
[33] "Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #15." SCAQMD, September 2010, *available at:* 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, p. 2.
[34] "CEQA & Climate Change." California Air Pollution Control Officers Association (CAPCOA), January 2008, *available at:* https://www.ourair.org/wp-content/uploads/CAPCOA-CEQA-and-Climate-Change.pdf., p. 71-72.
[35] Calculated: 0 residents + 654 employees = 654 service population.
[36] Calculated: (5,748.81 MT CO_2e/year) / (654 service population) = (8.79 MT CO_2e/SP/year).

Service Population	654
Service Population Efficiency (MT CO2e/SP/year)	**8.79**
SCAQMD 2035 Threshold	**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_2e/SP/year, indicating a potentially significant impact. A revised EIR should be prepared to include a GHG analysis which incorporates additional mitigation measures to reduce the Project's GHG emissions to less-than-significant levels.

Mitigation

Feasible Mitigation Measures Available to Reduce Emissions

Our analysis demonstrates that the Project would result in potentially significant air quality, health risk, and GHG impacts that should be mitigated further. To reduce emissions, the Project should consider the implementation of the following mitigation measures found in the California Department of Justice Warehouse Project Best Practices document.[37]

- 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.
- 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.

[37] "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*: https://oag.ca.gov/system/files/media/warehouse-best-practices.pdf, p. 8 – 10.

- 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 zero-emission 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 single-occupancy 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.

A revised EIR should be prepared to include all feasible mitigation measures, as well as include updated air quality, health risk, and GHG analyses to ensure that the necessary mitigation measures are implemented to reduce emissions to the maximum extent feasible. The revised EIR should also demonstrate a commitment to the implementation of these measures prior to Project approval, to ensure that the Project's potentially 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: SWAPE's CalEEMod Output Files
Attachment B: Matt Hagemann CV
Attachment C: Paul Rosenfeld CV

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

Cherry Avenue Warehouse

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	304.34	1000sqft	6.99	304,344.00	0
User Defined Industrial	304.00	User Defined Unit	0.00	0.00	0
Other Asphalt Surfaces	261.00	1000sqft	5.99	0.00	0
Parking Lot	338.00	Space	1.19	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the DEIR's model.

Land Use - Consistent with the DEIR's model.

Construction Phase - Consistent with the DEIR's model.

Off-road Equipment - Consistent with the DEIR's model.

Off-road Equipment - Consistent with the DEIR's model.

Off-road Equipment - Consistent with the DEIR's model.

Off-road Equipment - Consistent with the DEIR's model.

Off-road Equipment - Consistent with the DEIR's model.

Off-road Equipment - Consistent with the DEIR's model.

Cherry Avenue Warehouse - 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

Trips and VMT - Consistent with the DEIR's model.

Demolition - Consistent with the DEIR's model.

Grading - Consistent with the DEIR's model.

Architectural Coating - See SWAPE's comment on "Unsubstantiated Changes to Architectural Coating Emission Factors."

Vehicle Trips - See SWAPE's comment "Underestimated Operational Vehicle Trips."

Vehicle Emission Factors -

Vehicle Emission Factors -

Area Coating - See SWAPE's comment "Unsubstantiated Changes to Architectural Coating Emission Factors."

Energy Use - Consistent with the DEIR's model.

Fleet Mix - See SWAPE's comment "Unsubstantiated Changes to Operational Fleet Mix Values."

Stationary Sources - Emergency Generators and Fire Pumps - Consistent with the DEIR's model.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	55.00
tblConstructionPhase	NumDays	300.00	200.00
tblConstructionPhase	NumDays	20.00	25.00
tblConstructionPhase	NumDays	30.00	35.00
tblConstructionPhase	NumDays	20.00	27.00
tblEnergyUse	T24E	0.37	0.00
tblGrading	AcresOfGrading	15.00	35.00
tblGrading	MaterialExported	0.00	10,000.00
tblLandUse	LandUseSquareFeet	304,340.00	304,344.00
tblLandUse	LandUseSquareFeet	261,000.00	0.00
tblLandUse	LandUseSquareFeet	135,200.00	0.00
tblLandUse	LotAcreage	3.04	1.19
tblOffRoadEquipment	HorsePower	212.00	97.00
tblOffRoadEquipment	HorsePower	168.00	78.00
tblOffRoadEquipment	LoadFactor	0.43	0.37
tblOffRoadEquipment	LoadFactor	0.40	0.48

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

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	300.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	1,500.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.50
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.50
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	2,373.00	240.00
tblTripsAndVMT	HaulingTripNumber	1,250.00	35.70
tblTripsAndVMT	VendorTripLength	6.90	10.20
tblTripsAndVMT	VendorTripLength	6.90	10.20
tblTripsAndVMT	VendorTripLength	6.90	10.20
tblTripsAndVMT	VendorTripLength	6.90	10.20
tblTripsAndVMT	VendorTripLength	6.90	10.20
tblTripsAndVMT	VendorTripLength	6.90	10.20
tblTripsAndVMT	VendorTripNumber	0.00	5.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	7.00

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

tblTripsAndVMT	VendorTripNumber	50.00	37.00
tblTripsAndVMT	WorkerTripLength	14.70	18.50
tblTripsAndVMT	WorkerTripLength	14.70	18.50
tblTripsAndVMT	WorkerTripLength	14.70	18.50
tblTripsAndVMT	WorkerTripLength	14.70	18.50
tblTripsAndVMT	WorkerTripLength	14.70	18.50
tblTripsAndVMT	WorkerTripLength	14.70	18.50

2.0 Emissions Summary

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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	tons/yr										MT/yr					
2024	0.1994	1.7803	1.7676	4.2000e-003	0.5979	0.0754	0.6733	0.1721	0.0702	0.2423	0.0000	371.2930	371.2930	0.0862	5.9100e-003	375.2079
2025	1.6851	2.2525	3.1119	6.5000e-003	0.1772	0.0892	0.2664	0.0477	0.0838	0.1315	0.0000	575.6476	575.6476	0.0993	0.0131	582.0248
Maximum	**1.6851**	**2.2525**	**3.1119**	**6.5000e-003**	**0.5979**	**0.0892**	**0.6733**	**0.1721**	**0.0838**	**0.2423**	**0.0000**	**575.6476**	**575.6476**	**0.0993**	**0.0131**	**582.0248**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.1994	1.7803	1.7676	4.2000e-003	0.5979	0.0754	0.6733	0.1721	0.0702	0.2423	0.0000	371.2927	371.2927	0.0862	5.9100e-003	375.2076
2025	1.6851	2.2525	3.1119	6.5000e-003	0.1772	0.0892	0.2664	0.0477	0.0838	0.1315	0.0000	575.6471	575.6471	0.0993	0.0131	582.0244
Maximum	**1.6851**	**2.2525**	**3.1119**	**6.5000e-003**	**0.5979**	**0.0892**	**0.6733**	**0.1721**	**0.0838**	**0.2423**	**0.0000**	**575.6471**	**575.6471**	**0.0993**	**0.0131**	**582.0244**

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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	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	**7-25-2024**	**10-24-2024**	1.1862	1.1862
2	**10-25-2024**	**1-24-2025**	1.0547	1.0547
3	**1-25-2025**	**4-24-2025**	0.9648	0.9648
4	**4-25-2025**	**7-24-2025**	2.2698	2.2698
5	**7-25-2025**	**9-30-2025**	0.4323	0.4323
		Highest	2.2698	2.2698

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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	tons/yr										MT/yr					
Area	1.2422	1.4000e-004	0.0154	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0300	0.0300	8.0000e-005	0.0000	0.0319
Energy	1.6700e-003	0.0152	0.0128	9.0000e-005		1.1600e-003	1.1600e-003		1.1600e-003	1.1600e-003	0.0000	898.5018	898.5018	0.0748	9.3300e-003	903.1500
Mobile	0.3804	0.4514	4.1518	9.4600e-003	1.0390	6.8100e-003	1.0458	0.2772	6.3300e-003	0.2835	0.0000	875.4148	875.4148	0.0574	0.0365	887.7386
Stationary	0.0739	0.3096	0.1883	3.5000e-004		0.0109	0.0109		0.0109	0.0109	0.0000	34.2718	34.2718	4.8000e-003	0.0000	34.3919
Waste						0.0000	0.0000		0.0000	0.0000	58.0717	0.0000	58.0717	3.4319	0.0000	143.8701
Water						0.0000	0.0000		0.0000	0.0000	22.3279	162.5195	184.8474	2.3070	0.0558	259.1545
Total	**1.6981**	**0.7763**	**4.3683**	**9.9000e-003**	**1.0390**	**0.0189**	**1.0578**	**0.2772**	**0.0184**	**0.2956**	**80.3995**	**1,970.7378**	**2,051.1374**	**5.8760**	**0.1017**	**2,228.3370**

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	tons/yr										MT/yr					
Area	1.2422	1.4000e-004	0.0154	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0300	0.0300	8.0000e-005	0.0000	0.0319
Energy	1.6700e-003	0.0152	0.0128	9.0000e-005		1.1600e-003	1.1600e-003		1.1600e-003	1.1600e-003	0.0000	898.5018	898.5018	0.0748	9.3300e-003	903.1500
Mobile	0.3804	0.4514	4.1518	9.4600e-003	1.0390	6.8100e-003	1.0458	0.2772	6.3300e-003	0.2835	0.0000	875.4148	875.4148	0.0574	0.0365	887.7386
Stationary	0.0739	0.3096	0.1883	3.5000e-004		0.0109	0.0109		0.0109	0.0109	0.0000	34.2718	34.2718	4.8000e-003	0.0000	34.3919
Waste						0.0000	0.0000		0.0000	0.0000	58.0717	0.0000	58.0717	3.4319	0.0000	143.8701
Water						0.0000	0.0000		0.0000	0.0000	22.3279	162.5195	184.8474	2.3070	0.0558	259.1545
Total	**1.6981**	**0.7763**	**4.3683**	**9.9000e-003**	**1.0390**	**0.0189**	**1.0578**	**0.2772**	**0.0184**	**0.2956**	**80.3995**	**1,970.7378**	**2,051.1374**	**5.8760**	**0.1017**	**2,228.3370**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/25/2024	8/28/2024	5	25	
2	Site Preparation	Site Preparation	8/29/2024	9/11/2024	5	10	

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

3	Grading	Grading	9/12/2024	10/30/2024	5	35	
4	Building Construction	Building Construction	10/31/2024	8/6/2025	5	200	
5	Architectural Coating	Architectural Coating	5/22/2025	8/6/2025	5	55	
6	Paving	Paving	7/1/2025	8/6/2025	5	27	

Acres of Grading (Site Preparation Phase): 35

Acres of Grading (Grading Phase): 122.5

Acres of Paving: 7.18

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 456,516; Non-Residential Outdoor: 152,172; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Crushing/Proc. Equipment	1	8.00	85	0.78
Demolition	Excavators	3	8.00	158	0.38
Demolition	Off-Highway Trucks	2	8.00	402	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Crawler Tractors	1	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Off-Highway Trucks	1	8.00	402	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	4	4.00	367	0.48
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

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

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	Other Material Handling Equipment	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	9	23.00	5.00	240.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	2.00	0.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	23.00	7.00	35.70	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	16	128.00	37.00	0.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	26.00	0.00	0.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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

3.2 Demolition - 2024

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	tons/yr										MT/yr					
Fugitive Dust					0.2568	0.0000	0.2568	0.0389	0.0000	0.0389	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0458	0.3791	0.3816	9.0000e-004		0.0166	0.0166		0.0156	0.0156	0.0000	79.0686	79.0686	0.0217	0.0000	79.6112
Total	**0.0458**	**0.3791**	**0.3816**	**9.0000e-004**	**0.2568**	**0.0166**	**0.2734**	**0.0389**	**0.0156**	**0.0544**	**0.0000**	**79.0686**	**79.0686**	**0.0217**	**0.0000**	**79.6112**

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	tons/yr										MT/yr					
Hauling	2.5000e-004	0.0165	4.2800e-003	7.0000e-005	2.0600e-003	1.0000e-004	2.1600e-003	5.7000e-004	1.0000e-004	6.6000e-004	0.0000	6.9002	6.9002	3.9000e-004	1.1000e-003	7.2365
Vendor	8.0000e-005	3.3900e-003	1.0800e-003	2.0000e-005	5.8000e-004	2.0000e-005	6.0000e-004	1.7000e-004	2.0000e-005	1.8000e-004	0.0000	1.6117	1.6117	5.0000e-005	2.3000e-004	1.6821
Worker	9.9000e-004	7.8000e-004	0.0111	3.0000e-005	3.9600e-003	2.0000e-005	3.9900e-003	1.0500e-003	2.0000e-005	1.0700e-003	0.0000	3.0542	3.0542	7.0000e-005	7.0000e-005	3.0776
Total	**1.3200e-003**	**0.0207**	**0.0165**	**1.2000e-004**	**6.6000e-003**	**1.4000e-004**	**6.7500e-003**	**1.7900e-003**	**1.4000e-004**	**1.9100e-003**	**0.0000**	**11.5661**	**11.5661**	**5.1000e-004**	**1.4000e-003**	**11.9962**

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

3.2 Demolition - 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	tons/yr										MT/yr					
Fugitive Dust					0.2568	0.0000	0.2568	0.0389	0.0000	0.0389	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0458	0.3791	0.3816	9.0000e-004		0.0166	0.0166		0.0156	0.0156	0.0000	79.0685	79.0685	0.0217	0.0000	79.6111
Total	**0.0458**	**0.3791**	**0.3816**	**9.0000e-004**	**0.2568**	**0.0166**	**0.2734**	**0.0389**	**0.0156**	**0.0544**	**0.0000**	**79.0685**	**79.0685**	**0.0217**	**0.0000**	**79.6111**

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	tons/yr										MT/yr					
Hauling	2.5000e-004	0.0165	4.2800e-003	7.0000e-005	2.0600e-003	1.0000e-004	2.1600e-003	5.7000e-004	1.0000e-004	6.6000e-004	0.0000	6.9002	6.9002	3.9000e-004	1.1000e-003	7.2365
Vendor	8.0000e-005	3.3900e-003	1.0800e-003	2.0000e-005	5.8000e-004	2.0000e-005	6.0000e-004	1.7000e-004	2.0000e-005	1.8000e-004	0.0000	1.6117	1.6117	5.0000e-005	2.3000e-004	1.6821
Worker	9.9000e-004	7.8000e-004	0.0111	3.0000e-005	3.9600e-003	2.0000e-005	3.9900e-003	1.0500e-003	2.0000e-005	1.0700e-003	0.0000	3.0542	3.0542	7.0000e-005	7.0000e-005	3.0776
Total	**1.3200e-003**	**0.0207**	**0.0165**	**1.2000e-004**	**6.6000e-003**	**1.4000e-004**	**6.7500e-003**	**1.7900e-003**	**1.4000e-004**	**1.9100e-003**	**0.0000**	**11.5661**	**11.5661**	**5.1000e-004**	**1.4000e-003**	**11.9962**

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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 - 2024

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	tons/yr										MT/yr					
Fugitive Dust					0.1089	0.0000	0.1089	0.0517	0.0000	0.0517	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1359	0.0917	1.9000e-004		6.1500e-003	6.1500e-003		5.6600e-003	5.6600e-003	0.0000	16.7285	16.7285	5.4100e-003	0.0000	16.8638
Total	**0.0133**	**0.1359**	**0.0917**	**1.9000e-004**	**0.1089**	**6.1500e-003**	**0.1150**	**0.0517**	**5.6600e-003**	**0.0573**	**0.0000**	**16.7285**	**16.7285**	**5.4100e-003**	**0.0000**	**16.8638**

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	tons/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	1.0000e-005	5.4000e-004	1.7000e-004	0.0000	9.0000e-005	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.2579	0.2579	1.0000e-005	4.0000e-005	0.2691
Worker	3.1000e-004	2.4000e-004	3.4800e-003	1.0000e-005	1.2400e-003	1.0000e-005	1.2500e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	0.9561	0.9561	2.0000e-005	2.0000e-005	0.9634
Total	**3.2000e-004**	**7.8000e-004**	**3.6500e-003**	**1.0000e-005**	**1.3300e-003**	**1.0000e-005**	**1.3500e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.2140**	**1.2140**	**3.0000e-005**	**6.0000e-005**	**1.2325**

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

3.3 Site Preparation - 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	tons/yr										MT/yr					
Fugitive Dust					0.1089	0.0000	0.1089	0.0517	0.0000	0.0517	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1359	0.0917	1.9000e-004		6.1500e-003	6.1500e-003		5.6500e-003	5.6500e-003	0.0000	16.7285	16.7285	5.4100e-003	0.0000	16.8638
Total	**0.0133**	**0.1359**	**0.0917**	**1.9000e-004**	**0.1089**	**6.1500e-003**	**0.1150**	**0.0517**	**5.6500e-003**	**0.0573**	**0.0000**	**16.7285**	**16.7285**	**5.4100e-003**	**0.0000**	**16.8638**

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	tons/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	1.0000e-005	5.4000e-004	1.7000e-004	0.0000	9.0000e-005	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.2579	0.2579	1.0000e-005	4.0000e-005	0.2691
Worker	3.1000e-004	2.4000e-004	3.4800e-003	1.0000e-005	1.2400e-003	1.0000e-005	1.2500e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	0.9561	0.9561	2.0000e-005	2.0000e-005	0.9634
Total	**3.2000e-004**	**7.8000e-004**	**3.6500e-003**	**1.0000e-005**	**1.3300e-003**	**1.0000e-005**	**1.3500e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.2140**	**1.2140**	**3.0000e-005**	**6.0000e-005**	**1.2325**

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

3.4 Grading - 2024

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	tons/yr										MT/yr					
Fugitive Dust					0.1709	0.0000	0.1709	0.0650	0.0000	0.0650	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0625	0.5984	0.4493	1.1700e-003		0.0257	0.0257		0.0236	0.0236	0.0000	102.9978	102.9978	0.0333	0.0000	103.8306
Total	**0.0625**	**0.5984**	**0.4493**	**1.1700e-003**	**0.1709**	**0.0257**	**0.1966**	**0.0650**	**0.0236**	**0.0886**	**0.0000**	**102.9978**	**102.9978**	**0.0333**	**0.0000**	**103.8306**

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	tons/yr										MT/yr					
Hauling	4.0000e-005	2.4800e-003	6.4000e-004	1.0000e-005	3.1000e-004	1.0000e-005	3.2000e-004	8.0000e-005	1.0000e-005	1.0000e-004	0.0000	1.0350	1.0350	6.0000e-005	1.6000e-004	1.0855
Vendor	1.6000e-004	6.6400e-003	2.1200e-003	3.0000e-005	1.1400e-003	3.0000e-005	1.1700e-003	3.3000e-004	3.0000e-005	3.6000e-004	0.0000	3.1590	3.1590	1.1000e-004	4.5000e-004	3.2969
Worker	1.3900e-003	1.0900e-003	0.0155	5.0000e-005	5.5500e-003	3.0000e-005	5.5800e-003	1.4700e-003	3.0000e-005	1.5000e-003	0.0000	4.2759	4.2759	1.0000e-004	1.0000e-004	4.3086
Total	**1.5900e-003**	**0.0102**	**0.0183**	**9.0000e-005**	**7.0000e-003**	**7.0000e-005**	**7.0700e-003**	**1.8800e-003**	**7.0000e-005**	**1.9600e-003**	**0.0000**	**8.4699**	**8.4699**	**2.7000e-004**	**7.1000e-004**	**8.6909**

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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 - 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	tons/yr										MT/yr					
Fugitive Dust					0.1709	0.0000	0.1709	0.0650	0.0000	0.0650	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0625	0.5984	0.4493	1.1700e-003		0.0257	0.0257		0.0236	0.0236	0.0000	102.9977	102.9977	0.0333	0.0000	103.8305
Total	**0.0625**	**0.5984**	**0.4493**	**1.1700e-003**	**0.1709**	**0.0257**	**0.1966**	**0.0650**	**0.0236**	**0.0886**	**0.0000**	**102.9977**	**102.9977**	**0.0333**	**0.0000**	**103.8305**

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	tons/yr										MT/yr					
Hauling	4.0000e-005	2.4800e-003	6.4000e-004	1.0000e-005	3.1000e-004	1.0000e-005	3.2000e-004	8.0000e-005	1.0000e-005	1.0000e-004	0.0000	1.0350	1.0350	6.0000e-005	1.6000e-004	1.0855
Vendor	1.6000e-004	6.6400e-003	2.1200e-003	3.0000e-005	1.1400e-003	3.0000e-005	1.1700e-003	3.3000e-004	3.0000e-005	3.6000e-004	0.0000	3.1590	3.1590	1.1000e-004	4.5000e-004	3.2969
Worker	1.3900e-003	1.0900e-003	0.0155	5.0000e-005	5.5500e-003	3.0000e-005	5.5800e-003	1.4700e-003	3.0000e-005	1.5000e-003	0.0000	4.2759	4.2759	1.0000e-004	1.0000e-004	4.3086
Total	**1.5900e-003**	**0.0102**	**0.0183**	**9.0000e-005**	**7.0000e-003**	**7.0000e-005**	**7.0700e-003**	**1.8800e-003**	**7.0000e-005**	**1.9600e-003**	**0.0000**	**8.4699**	**8.4699**	**2.7000e-004**	**7.1000e-004**	**8.6909**

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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 - 2024

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	tons/yr										MT/yr					
Off-Road	0.0637	0.5834	0.6837	1.1700e-003		0.0263	0.0263		0.0248	0.0248	0.0000	100.3417	100.3417	0.0236	0.0000	100.9313
Total	**0.0637**	**0.5834**	**0.6837**	**1.1700e-003**		**0.0263**	**0.0263**		**0.0248**	**0.0248**	**0.0000**	**100.3417**	**100.3417**	**0.0236**	**0.0000**	**100.9313**

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	tons/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	1.0700e-003	0.0441	0.0141	2.1000e-004	7.5700e-003	2.3000e-004	7.8100e-003	2.1800e-003	2.2000e-004	2.4100e-003	0.0000	20.9909	20.9909	7.1000e-004	3.0200e-003	21.9073
Worker	9.7200e-003	7.6500e-003	0.1087	3.3000e-004	0.0388	2.2000e-004	0.0391	0.0103	2.1000e-004	0.0105	0.0000	29.9155	29.9155	6.7000e-004	7.1000e-004	30.1441
Total	**0.0108**	**0.0518**	**0.1229**	**5.4000e-004**	**0.0464**	**4.5000e-004**	**0.0469**	**0.0125**	**4.3000e-004**	**0.0129**	**0.0000**	**50.9064**	**50.9064**	**1.3800e-003**	**3.7300e-003**	**52.0514**

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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 - 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	tons/yr										MT/yr					
Off-Road	0.0637	0.5834	0.6837	1.1700e-003		0.0263	0.0263		0.0248	0.0248	0.0000	100.3416	100.3416	0.0236	0.0000	100.9312
Total	**0.0637**	**0.5834**	**0.6837**	**1.1700e-003**		**0.0263**	**0.0263**		**0.0248**	**0.0248**	**0.0000**	**100.3416**	**100.3416**	**0.0236**	**0.0000**	**100.9312**

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	tons/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	1.0700e-003	0.0441	0.0141	2.1000e-004	7.5700e-003	2.3000e-004	7.8100e-003	2.1800e-003	2.2000e-004	2.4100e-003	0.0000	20.9909	20.9909	7.1000e-004	3.0200e-003	21.9073
Worker	9.7200e-003	7.6500e-003	0.1087	3.3000e-004	0.0388	2.2000e-004	0.0391	0.0103	2.1000e-004	0.0105	0.0000	29.9155	29.9155	6.7000e-004	7.1000e-004	30.1441
Total	**0.0108**	**0.0518**	**0.1229**	**5.4000e-004**	**0.0464**	**4.5000e-004**	**0.0469**	**0.0125**	**4.3000e-004**	**0.0129**	**0.0000**	**50.9064**	**50.9064**	**1.3800e-003**	**3.7300e-003**	**52.0514**

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

3.5 Building Construction - 2025

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	tons/yr										MT/yr					
Off-Road	0.2101	1.9172	2.4112	4.1400e-003		0.0805	0.0805		0.0757	0.0757	0.0000	355.8619	355.8619	0.0831	0.0000	357.9401
Total	**0.2101**	**1.9172**	**2.4112**	**4.1400e-003**		**0.0805**	**0.0805**		**0.0757**	**0.0757**	**0.0000**	**355.8619**	**355.8619**	**0.0831**	**0.0000**	**357.9401**

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	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.6800e-003	0.1556	0.0490	7.5000e-004	0.0269	8.2000e-004	0.0277	7.7500e-003	7.9000e-004	8.5400e-003	0.0000	73.0823	73.0823	2.5500e-003	0.0105	76.2764
Worker	0.0323	0.0243	0.3585	1.1200e-003	0.1377	7.6000e-004	0.1384	0.0366	7.0000e-004	0.0373	0.0000	102.4599	102.4599	2.1400e-003	2.3500e-003	103.2140
Total	**0.0360**	**0.1799**	**0.4075**	**1.8700e-003**	**0.1645**	**1.5800e-003**	**0.1661**	**0.0443**	**1.4900e-003**	**0.0458**	**0.0000**	**175.5422**	**175.5422**	**4.6900e-003**	**0.0129**	**179.4903**

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

3.5 Building Construction - 2025

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	tons/yr										MT/yr					
Off-Road	0.2101	1.9172	2.4112	4.1400e-003		0.0805	0.0805		0.0757	0.0757	0.0000	355.8615	355.8615	0.0831	0.0000	357.9397
Total	**0.2101**	**1.9172**	**2.4112**	**4.1400e-003**		**0.0805**	**0.0805**		**0.0757**	**0.0757**	**0.0000**	**355.8615**	**355.8615**	**0.0831**	**0.0000**	**357.9397**

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	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.6800e-003	0.1556	0.0490	7.5000e-004	0.0269	8.2000e-004	0.0277	7.7500e-003	7.9000e-004	8.5400e-003	0.0000	73.0823	73.0823	2.5500e-003	0.0105	76.2764
Worker	0.0323	0.0243	0.3585	1.1200e-003	0.1377	7.6000e-004	0.1384	0.0366	7.0000e-004	0.0373	0.0000	102.4599	102.4599	2.1400e-003	2.3500e-003	103.2140
Total	**0.0360**	**0.1799**	**0.4075**	**1.8700e-003**	**0.1645**	**1.5800e-003**	**0.1661**	**0.0443**	**1.4900e-003**	**0.0458**	**0.0000**	**175.5422**	**175.5422**	**4.6900e-003**	**0.0129**	**179.4903**

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

3.6 Architectural Coating - 2025

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	tons/yr										MT/yr					
Archit. Coating	1.4106					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6900e-003	0.0373	0.0635	9.0000e-005		1.4600e-003	1.4600e-003		1.3500e-003	1.3500e-003	0.0000	7.8017	7.8017	2.5200e-003	0.0000	7.8648
Total	**1.4143**	**0.0373**	**0.0635**	**9.0000e-005**		**1.4600e-003**	**1.4600e-003**		**1.3500e-003**	**1.3500e-003**	**0.0000**	**7.8017**	**7.8017**	**2.5200e-003**	**0.0000**	**7.8648**

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	tons/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	2.3100e-003	1.7400e-003	0.0257	8.0000e-005	9.8600e-003	5.0000e-005	9.9100e-003	2.6200e-003	5.0000e-005	2.6700e-003	0.0000	7.3376	7.3376	1.5000e-004	1.7000e-004	7.3916
Total	**2.3100e-003**	**1.7400e-003**	**0.0257**	**8.0000e-005**	**9.8600e-003**	**5.0000e-005**	**9.9100e-003**	**2.6200e-003**	**5.0000e-005**	**2.6700e-003**	**0.0000**	**7.3376**	**7.3376**	**1.5000e-004**	**1.7000e-004**	**7.3916**

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

3.6 Architectural Coating - 2025

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	tons/yr										MT/yr					
Archit. Coating	1.4106					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6900e-003	0.0373	0.0635	9.0000e-005		1.4600e-003	1.4600e-003		1.3500e-003	1.3500e-003	0.0000	7.8017	7.8017	2.5200e-003	0.0000	7.8648
Total	**1.4143**	**0.0373**	**0.0635**	**9.0000e-005**		**1.4600e-003**	**1.4600e-003**		**1.3500e-003**	**1.3500e-003**	**0.0000**	**7.8017**	**7.8017**	**2.5200e-003**	**0.0000**	**7.8648**

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	tons/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	2.3100e-003	1.7400e-003	0.0257	8.0000e-005	9.8600e-003	5.0000e-005	9.9100e-003	2.6200e-003	5.0000e-005	2.6700e-003	0.0000	7.3376	7.3376	1.5000e-004	1.7000e-004	7.3916
Total	**2.3100e-003**	**1.7400e-003**	**0.0257**	**8.0000e-005**	**9.8600e-003**	**5.0000e-005**	**9.9100e-003**	**2.6200e-003**	**5.0000e-005**	**2.6700e-003**	**0.0000**	**7.3376**	**7.3376**	**1.5000e-004**	**1.7000e-004**	**7.3916**

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

3.7 Paving - 2025

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	tons/yr										MT/yr					
Off-Road	0.0124	0.1159	0.1968	3.1000e-004		5.6500e-003	5.6500e-003		5.2000e-003	5.2000e-003	0.0000	27.0260	27.0260	8.7400e-003	0.0000	27.2445
Paving	9.4100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0218**	**0.1159**	**0.1968**	**3.1000e-004**		**5.6500e-003**	**5.6500e-003**		**5.2000e-003**	**5.2000e-003**	**0.0000**	**27.0260**	**27.0260**	**8.7400e-003**	**0.0000**	**27.2445**

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	tons/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	6.5000e-004	4.9000e-004	7.2700e-003	2.0000e-005	2.7900e-003	2.0000e-005	2.8100e-003	7.4000e-004	1.0000e-005	7.6000e-004	0.0000	2.0781	2.0781	4.0000e-005	5.0000e-005	2.0934
Total	**6.5000e-004**	**4.9000e-004**	**7.2700e-003**	**2.0000e-005**	**2.7900e-003**	**2.0000e-005**	**2.8100e-003**	**7.4000e-004**	**1.0000e-005**	**7.6000e-004**	**0.0000**	**2.0781**	**2.0781**	**4.0000e-005**	**5.0000e-005**	**2.0934**

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

3.7 Paving - 2025

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	tons/yr										MT/yr					
Off-Road	0.0124	0.1159	0.1968	3.1000e-004		5.6500e-003	5.6500e-003		5.2000e-003	5.2000e-003	0.0000	27.0260	27.0260	8.7400e-003	0.0000	27.2445
Paving	9.4100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0218**	**0.1159**	**0.1968**	**3.1000e-004**		**5.6500e-003**	**5.6500e-003**		**5.2000e-003**	**5.2000e-003**	**0.0000**	**27.0260**	**27.0260**	**8.7400e-003**	**0.0000**	**27.2445**

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	tons/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	6.5000e-004	4.9000e-004	7.2700e-003	2.0000e-005	2.7900e-003	2.0000e-005	2.8100e-003	7.4000e-004	1.0000e-005	7.6000e-004	0.0000	2.0781	2.0781	4.0000e-005	5.0000e-005	2.0934
Total	**6.5000e-004**	**4.9000e-004**	**7.2700e-003**	**2.0000e-005**	**2.7900e-003**	**2.0000e-005**	**2.8100e-003**	**7.4000e-004**	**1.0000e-005**	**7.6000e-004**	**0.0000**	**2.0781**	**2.0781**	**4.0000e-005**	**5.0000e-005**	**2.0934**

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	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					
Mitigated	0.3804	0.4514	4.1518	9.4600e-003	1.0390	6.8100e-003	1.0458	0.2772	6.3300e-003	0.2835	0.0000	875.4148	875.4148	0.0574	0.0365	887.7386
Unmitigated	0.3804	0.4514	4.1518	9.4600e-003	1.0390	6.8100e-003	1.0458	0.2772	6.3300e-003	0.2835	0.0000	875.4148	875.4148	0.0574	0.0365	887.7386

4.2 Trip Summary Information

	Average Daily Trip Rate			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	645.20	645.20	645.20	2,765,148	2,765,148
User Defined Industrial	0.00	0.00	0.00		
Total	645.20	645.20	645.20	2,765,148	2,765,148

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
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	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

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

	Miles			Trip %			Trip Purpose %		
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
User Defined Industrial	16.60	8.40	6.90	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	0.540171	0.064547	0.189075	0.126673	0.023412	0.006384	0.010926	0.008089	0.000929	0.000597	0.025155	0.000706	0.003335
Parking Lot	0.540171	0.064547	0.189075	0.126673	0.023412	0.006384	0.010926	0.008089	0.000929	0.000597	0.025155	0.000706	0.003335
Refrigerated Warehouse-No Rail	0.540171	0.064547	0.189075	0.126673	0.023412	0.006384	0.010926	0.008089	0.000929	0.000597	0.025155	0.000706	0.003335
User Defined Industrial	0.540171	0.064547	0.189075	0.126673	0.023412	0.006384	0.010926	0.008089	0.000929	0.000597	0.025155	0.000706	0.003335

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Cherry Avenue Warehouse - 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	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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	881.9360	881.9360	0.0744	9.0200e-003	886.4858
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	881.9360	881.9360	0.0744	9.0200e-003	886.4858
NaturalGas Mitigated	1.6700e-003	0.0152	0.0128	9.0000e-005		1.1600e-003	1.1600e-003		1.1600e-003	1.1600e-003	0.0000	16.5658	16.5658	3.2000e-004	3.0000e-004	16.6642
NaturalGas Unmitigated	1.6700e-003	0.0152	0.0128	9.0000e-005		1.1600e-003	1.1600e-003		1.1600e-003	1.1600e-003	0.0000	16.5658	16.5658	3.2000e-004	3.0000e-004	16.6642

Cherry Avenue Warehouse - 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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
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	310431	1.6700e-003	0.0152	0.0128	9.0000e-005		1.1600e-003	1.1600e-003		1.1600e-003	1.1600e-003	0.0000	16.5658	16.5658	3.2000e-004	3.0000e-004	16.6642
User Defined Industrial	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		**1.6700e-003**	**0.0152**	**0.0128**	**9.0000e-005**		**1.1600e-003**	**1.1600e-003**		**1.1600e-003**	**1.1600e-003**	**0.0000**	**16.5658**	**16.5658**	**3.2000e-004**	**3.0000e-004**	**16.6642**

Cherry Avenue Warehouse - 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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
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	310431	1.6700e-003	0.0152	0.0128	9.0000e-005		1.1600e-003	1.1600e-003		1.1600e-003	1.1600e-003	0.0000	16.5658	16.5658	3.2000e-004	3.0000e-004	16.6642
User Defined Industrial	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		**1.6700e-003**	**0.0152**	**0.0128**	**9.0000e-005**		**1.1600e-003**	**1.1600e-003**		**1.1600e-003**	**1.1600e-003**	**0.0000**	**16.5658**	**16.5658**	**3.2000e-004**	**3.0000e-004**	**16.6642**

Cherry Avenue Warehouse - 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

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	4.97298e+006	881.9360	0.0744	9.0200e-003	886.4858
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**881.9360**	**0.0744**	**9.0200e-003**	**886.4858**

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

Mitigated

	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	4.97298e+006	881.9360	0.0744	9.0200e-003	886.4858
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**881.9360**	**0.0744**	**9.0200e-003**	**886.4858**

6.0 Area Detail

6.1 Mitigation Measures Area

Cherry Avenue Warehouse - 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	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					
Mitigated	1.2422	1.4000e-004	0.0154	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0300	0.0300	8.0000e-005	0.0000	0.0319
Unmitigated	1.2422	1.4000e-004	0.0154	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0300	0.0300	8.0000e-005	0.0000	0.0319

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	tons/yr										MT/yr					
Architectural Coating	0.1411					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.4200e-003	1.4000e-004	0.0154	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0300	0.0300	8.0000e-005	0.0000	0.0319
Total	**1.2422**	**1.4000e-004**	**0.0154**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.0300**	**0.0300**	**8.0000e-005**	**0.0000**	**0.0319**

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	tons/yr										MT/yr					
Architectural Coating	0.1411					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.4200e-003	1.4000e-004	0.0154	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0300	0.0300	8.0000e-005	0.0000	0.0319
Total	**1.2422**	**1.4000e-004**	**0.0154**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.0300**	**0.0300**	**8.0000e-005**	**0.0000**	**0.0319**

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			
Mitigated	184.8474	2.3070	0.0558	259.1545
Unmitigated	184.8474	2.3070	0.0558	259.1545

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor 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	70.3786 / 0	184.8474	2.3070	0.0558	259.1545
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**184.8474**	**2.3070**	**0.0558**	**259.1545**

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/Outdoor 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	70.3786 / 0	184.8474	2.3070	0.0558	259.1545
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**184.8474**	**2.3070**	**0.0558**	**259.1545**

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	58.0717	3.4319	0.0000	143.8701
Unmitigated	58.0717	3.4319	0.0000	143.8701

8.2 Waste by Land Use

Unmitigated

	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	286.08	58.0717	3.4319	0.0000	143.8701
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**58.0717**	**3.4319**	**0.0000**	**143.8701**

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

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	286.08	58.0717	3.4319	0.0000	143.8701
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**58.0717**	**3.4319**	**0.0000**	**143.8701**

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
Emergency Generator	1	0.5	50	300	0.73	Diesel
Fire Pump	1	0.5	50	1500	0.73	Diesel

Boilers

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

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (300 - 600 HP)	0.0123	0.0344	0.0314	6.0000e-005		1.8100e-003	1.8100e-003		1.8100e-003	1.8100e-003	0.0000	5.7120	5.7120	8.0000e-004	0.0000	5.7320
Fire Pump - Diesel (750 - 9999 HP)	0.0615	0.2752	0.1569	3.0000e-004		9.0500e-003	9.0500e-003		9.0500e-003	9.0500e-003	0.0000	28.5598	28.5598	4.0000e-003	0.0000	28.6599
Total	**0.0739**	**0.3096**	**0.1883**	**3.6000e-004**		**0.0109**	**0.0109**		**0.0109**	**0.0109**	**0.0000**	**34.2718**	**34.2718**	**4.8000e-003**	**0.0000**	**34.3919**

11.0 Vegetation

Cherry Avenue Warehouse - 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

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	304.34	1000sqft	6.99	304,344.00	0
User Defined Industrial	304.00	User Defined Unit	0.00	0.00	0
Other Asphalt Surfaces	261.00	1000sqft	5.99	0.00	0
Parking Lot	338.00	Space	1.19	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the DEIR's model.

Land Use - Consistent with the DEIR's model.

Construction Phase - Consistent with the DEIR's model.

Off-road Equipment - Consistent with the DEIR's model.

Off-road Equipment - Consistent with the DEIR's model.

Off-road Equipment - Consistent with the DEIR's model.

Off-road Equipment - Consistent with the DEIR's model.

Off-road Equipment - Consistent with the DEIR's model.

Off-road Equipment - Consistent with the DEIR's model.

Cherry Avenue Warehouse - 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

Trips and VMT - Consistent with the DEIR's model.

Demolition - Consistent with the DEIR's model.

Grading - Consistent with the DEIR's model.

Architectural Coating - See SWAPE's comment on "Unsubstantiated Changes to Architectural Coating Emission Factors."

Vehicle Trips - See SWAPE's comment "Underestimated Operational Vehicle Trips."

Vehicle Emission Factors -

Vehicle Emission Factors -

Area Coating - See SWAPE's comment "Unsubstantiated Changes to Architectural Coating Emission Factors."

Energy Use - Consistent with the DEIR's model.

Fleet Mix - See SWAPE's comment "Unsubstantiated Changes to Operational Fleet Mix Values."

Stationary Sources - Emergency Generators and Fire Pumps - Consistent with the DEIR's model.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	55.00
tblConstructionPhase	NumDays	300.00	200.00
tblConstructionPhase	NumDays	20.00	25.00
tblConstructionPhase	NumDays	30.00	35.00
tblConstructionPhase	NumDays	20.00	27.00
tblEnergyUse	T24E	0.37	0.00
tblGrading	AcresOfGrading	15.00	35.00
tblGrading	MaterialExported	0.00	10,000.00
tblLandUse	LandUseSquareFeet	304,340.00	304,344.00
tblLandUse	LandUseSquareFeet	261,000.00	0.00
tblLandUse	LandUseSquareFeet	135,200.00	0.00
tblLandUse	LotAcreage	3.04	1.19
tblOffRoadEquipment	HorsePower	212.00	97.00
tblOffRoadEquipment	HorsePower	168.00	78.00
tblOffRoadEquipment	LoadFactor	0.43	0.37
tblOffRoadEquipment	LoadFactor	0.40	0.48

Cherry Avenue Warehouse - 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

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	300.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	1,500.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.50
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.50
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	2,373.00	240.00
tblTripsAndVMT	HaulingTripNumber	1,250.00	35.70
tblTripsAndVMT	VendorTripLength	6.90	10.20
tblTripsAndVMT	VendorTripLength	6.90	10.20
tblTripsAndVMT	VendorTripLength	6.90	10.20
tblTripsAndVMT	VendorTripLength	6.90	10.20
tblTripsAndVMT	VendorTripLength	6.90	10.20
tblTripsAndVMT	VendorTripLength	6.90	10.20
tblTripsAndVMT	VendorTripNumber	0.00	5.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	7.00

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

tblTripsAndVMT	VendorTripNumber	50.00	37.00
tblTripsAndVMT	WorkerTripLength	14.70	18.50
tblTripsAndVMT	WorkerTripLength	14.70	18.50
tblTripsAndVMT	WorkerTripLength	14.70	18.50
tblTripsAndVMT	WorkerTripLength	14.70	18.50
tblTripsAndVMT	WorkerTripLength	14.70	18.50
tblTripsAndVMT	WorkerTripLength	14.70	18.50

2.0 Emissions Summary

Cherry Avenue Warehouse - 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	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	3.7703	34.7466	36.9843	0.0819	22.0501	1.4701	23.2814	10.4040	1.3526	11.5369	0.0000	8,003.0923	8,003.0923	2.1147	0.1837	8,088.6975
2025	56.3291	36.7783	54.8881	0.1084	2.7268	1.5266	4.2534	0.7310	1.4267	2.1577	0.0000	10,569.3328	10,569.3328	2.0654	0.1887	10,677.1904
Maximum	**56.3291**	**36.7783**	**54.8881**	**0.1084**	**22.0501**	**1.5266**	**23.2814**	**10.4040**	**1.4267**	**11.5369**	**0.0000**	**10,569.3328**	**10,569.3328**	**2.1147**	**0.1887**	**10,677.1904**

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	lb/day										lb/day					
2024	3.7703	34.7466	36.9843	0.0819	22.0501	1.4701	23.2814	10.4040	1.3526	11.5369	0.0000	8,003.0923	8,003.0923	2.1147	0.1837	8,088.6975
2025	56.3291	36.7783	54.8881	0.1084	2.7268	1.5266	4.2534	0.7310	1.4267	2.1577	0.0000	10,569.3327	10,569.3327	2.0654	0.1887	10,677.1904
Maximum	**56.3291**	**36.7783**	**54.8881**	**0.1084**	**22.0501**	**1.5266**	**23.2814**	**10.4040**	**1.4267**	**11.5369**	**0.0000**	**10,569.3327**	**10,569.3327**	**2.1147**	**0.1887**	**10,677.1904**

Cherry Avenue Warehouse - 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	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**

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/day										lb/day					
Area	6.8103	1.1100e-003	0.1230	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2642	0.2642	6.9000e-004		0.2814
Energy	9.1700e-003	0.0834	0.0700	5.0000e-004		6.3400e-003	6.3400e-003		6.3400e-003	6.3400e-003		100.0583	100.0583	1.9200e-003	1.8300e-003	100.6529
Mobile	2.1503	2.2630	23.2067	0.0537	5.8221	0.0375	5.8596	1.5509	0.0348	1.5857		5,477.8700	5,477.8700	0.3415	0.2108	5,549.2309
Stationary	1.4770	6.1921	3.7659	7.1000e-003		0.2173	0.2173		0.2173	0.2173		755.5627	755.5627	0.1059		758.2110
Total	**10.4467**	**8.5396**	**27.1656**	**0.0613**	**5.8221**	**0.2615**	**6.0836**	**1.5509**	**0.2589**	**1.8098**		**6,333.7553**	**6,333.7553**	**0.4500**	**0.2127**	**6,408.3762**

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	lb/day										lb/day					
Area	6.8103	1.1100e-003	0.1230	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2642	0.2642	6.9000e-004		0.2814
Energy	9.1700e-003	0.0834	0.0700	5.0000e-004		6.3400e-003	6.3400e-003		6.3400e-003	6.3400e-003		100.0583	100.0583	1.9200e-003	1.8300e-003	100.6529
Mobile	2.1503	2.2630	23.2067	0.0537	5.8221	0.0375	5.8596	1.5509	0.0348	1.5857		5,477.8700	5,477.8700	0.3415	0.2108	5,549.2309
Stationary	1.4770	6.1921	3.7659	7.1000e-003		0.2173	0.2173		0.2173	0.2173		755.5627	755.5627	0.1059		758.2110
Total	**10.4467**	**8.5396**	**27.1656**	**0.0613**	**5.8221**	**0.2615**	**6.0836**	**1.5509**	**0.2589**	**1.8098**		**6,333.7553**	**6,333.7553**	**0.4500**	**0.2127**	**6,408.3762**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/25/2024	8/28/2024	5	25	
2	Site Preparation	Site Preparation	8/29/2024	9/11/2024	5	10	
3	Grading	Grading	9/12/2024	10/30/2024	5	35	
4	Building Construction	Building Construction	10/31/2024	8/6/2025	5	200	

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

5	Architectural Coating	Architectural Coating	5/22/2025	8/6/2025	5	55	
6	Paving	Paving	7/1/2025	8/6/2025	5	27	

Acres of Grading (Site Preparation Phase): 35

Acres of Grading (Grading Phase): 122.5

Acres of Paving: 7.18

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 456,516; Non-Residential Outdoor: 152,172; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Crushing/Proc. Equipment	1	8.00	85	0.78
Demolition	Excavators	3	8.00	158	0.38
Demolition	Off-Highway Trucks	2	8.00	402	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Crawler Tractors	1	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Off-Highway Trucks	1	8.00	402	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	4	4.00	367	0.48
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

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

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	Other Material Handling Equipment	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	9	23.00	5.00	240.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	2.00	0.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	23.00	7.00	35.70	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	16	128.00	37.00	0.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	26.00	0.00	0.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Cherry Avenue Warehouse - 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 - 2024

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/day										lb/day					
Fugitive Dust					20.5430	0.0000	20.5430	3.1104	0.0000	3.1104			0.0000			0.0000
Off-Road	3.6634	30.3274	30.5308	0.0723		1.3308	1.3308		1.2436	1.2436		6,972.6537	6,972.6537	1.9141		7,020.5055
Total	**3.6634**	**30.3274**	**30.5308**	**0.0723**	**20.5430**	**1.3308**	**21.8738**	**3.1104**	**1.2436**	**4.3540**		**6,972.6537**	**6,972.6537**	**1.9141**		**7,020.5055**

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/day										lb/day					
Hauling	0.0207	1.2559	0.3403	5.5300e-003	0.1681	7.9700e-003	0.1760	0.0461	7.6200e-003	0.0537		608.2171	608.2171	0.0343	0.0966	637.8676
Vendor	6.6800e-003	0.2575	0.0857	1.3200e-003	0.0473	1.4200e-003	0.0487	0.0136	1.3600e-003	0.0150		142.0572	142.0572	4.8400e-003	0.0204	148.2537
Worker	0.0795	0.0552	0.9472	2.7700e-003	0.3235	1.8400e-003	0.3253	0.0858	1.6900e-003	0.0875		280.1643	280.1643	6.0100e-003	5.8900e-003	282.0707
Total	**0.1068**	**1.5687**	**1.3731**	**9.6200e-003**	**0.5388**	**0.0112**	**0.5500**	**0.1455**	**0.0107**	**0.1561**		**1,030.4385**	**1,030.4385**	**0.0452**	**0.1229**	**1,068.1920**

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

3.2 Demolition - 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/day										lb/day					
Fugitive Dust					20.5430	0.0000	20.5430	3.1104	0.0000	3.1104			0.0000			0.0000
Off-Road	3.6634	30.3274	30.5308	0.0723		1.3308	1.3308		1.2436	1.2436	0.0000	6,972.6537	6,972.6537	1.9141		7,020.5055
Total	**3.6634**	**30.3274**	**30.5308**	**0.0723**	**20.5430**	**1.3308**	**21.8738**	**3.1104**	**1.2436**	**4.3540**	**0.0000**	**6,972.6537**	**6,972.6537**	**1.9141**		**7,020.5055**

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/day					
Hauling	0.0207	1.2559	0.3403	5.5300e-003	0.1681	7.9700e-003	0.1760	0.0461	7.6200e-003	0.0537		608.2171	608.2171	0.0343	0.0966	637.8676
Vendor	6.6800e-003	0.2575	0.0857	1.3200e-003	0.0473	1.4200e-003	0.0487	0.0136	1.3600e-003	0.0150		142.0572	142.0572	4.8400e-003	0.0204	148.2537
Worker	0.0795	0.0552	0.9472	2.7700e-003	0.3235	1.8400e-003	0.3253	0.0858	1.6900e-003	0.0875		280.1643	280.1643	6.0100e-003	5.8900e-003	282.0707
Total	**0.1068**	**1.5687**	**1.3731**	**9.6200e-003**	**0.5388**	**0.0112**	**0.5500**	**0.1455**	**0.0107**	**0.1561**		**1,030.4385**	**1,030.4385**	**0.0452**	**0.1229**	**1,068.1920**

Cherry Avenue Warehouse - 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 - 2024

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/day										lb/day					
Fugitive Dust					21.7780	0.0000	21.7780	10.3315	0.0000	10.3315			0.0000			0.0000
Off-Road	2.6609	27.1760	18.3356	0.0381		1.2294	1.2294		1.1310	1.1310		3,688.0100	3,688.0100	1.1928		3,717.8294
Total	**2.6609**	**27.1760**	**18.3356**	**0.0381**	**21.7780**	**1.2294**	**23.0074**	**10.3315**	**1.1310**	**11.4625**		**3,688.0100**	**3,688.0100**	**1.1928**		**3,717.8294**

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/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.6700e-003	0.1030	0.0343	5.3000e-004	0.0189	5.7000e-004	0.0195	5.4400e-003	5.4000e-004	5.9900e-003		56.8229	56.8229	1.9400e-003	8.1500e-003	59.3015
Worker	0.0622	0.0432	0.7413	2.1700e-003	0.2532	1.4400e-003	0.2546	0.0671	1.3200e-003	0.0685		219.2590	219.2590	4.7000e-003	4.6100e-003	220.7510
Total	**0.0649**	**0.1462**	**0.7756**	**2.7000e-003**	**0.2721**	**2.0100e-003**	**0.2741**	**0.0726**	**1.8600e-003**	**0.0745**		**276.0819**	**276.0819**	**6.6400e-003**	**0.0128**	**280.0525**

Cherry Avenue Warehouse - 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 - 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/day										lb/day					
Fugitive Dust					21.7780	0.0000	21.7780	10.3315	0.0000	10.3315			0.0000			0.0000
Off-Road	2.6609	27.1760	18.3356	0.0381		1.2294	1.2294		1.1310	1.1310	0.0000	3,688.0100	3,688.0100	1.1928		3,717.8294
Total	**2.6609**	**27.1760**	**18.3356**	**0.0381**	**21.7780**	**1.2294**	**23.0074**	**10.3315**	**1.1310**	**11.4625**	**0.0000**	**3,688.0100**	**3,688.0100**	**1.1928**		**3,717.8294**

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/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	2.6700e-003	0.1030	0.0343	5.3000e-004	0.0189	5.7000e-004	0.0195	5.4400e-003	5.4000e-004	5.9900e-003		56.8229	56.8229	1.9400e-003	8.1500e-003	59.3015
Worker	0.0622	0.0432	0.7413	2.1700e-003	0.2532	1.4400e-003	0.2546	0.0671	1.3200e-003	0.0685		219.2590	219.2590	4.7000e-003	4.6100e-003	220.7510
Total	**0.0649**	**0.1462**	**0.7756**	**2.7000e-003**	**0.2721**	**2.0100e-003**	**0.2741**	**0.0726**	**1.8600e-003**	**0.0745**		**276.0819**	**276.0819**	**6.6400e-003**	**0.0128**	**280.0525**

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

3.4 Grading - 2024

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/day										lb/day					
Fugitive Dust					9.7662	0.0000	9.7662	3.7159	0.0000	3.7159			0.0000			0.0000
Off-Road	3.5720	34.1963	25.6749	0.0670		1.4655	1.4655		1.3482	1.3482		6,487.7523	6,487.7523	2.0983		6,540.2091
Total	**3.5720**	**34.1963**	**25.6749**	**0.0670**	**9.7662**	**1.4655**	**11.2316**	**3.7159**	**1.3482**	**5.0641**		**6,487.7523**	**6,487.7523**	**2.0983**		**6,540.2091**

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/day										lb/day					
Hauling	2.2200e-003	0.1346	0.0365	5.9000e-004	0.0179	8.5000e-004	0.0187	4.9100e-003	8.2000e-004	5.7300e-003		65.1661	65.1661	3.6800e-003	0.0104	68.3430
Vendor	9.3600e-003	0.3605	0.1199	1.8500e-003	0.0662	1.9900e-003	0.0682	0.0191	1.9000e-003	0.0210		198.8801	198.8801	6.7800e-003	0.0285	207.5552
Worker	0.0795	0.0552	0.9472	2.7700e-003	0.3235	1.8400e-003	0.3253	0.0858	1.6900e-003	0.0875		280.1643	280.1643	6.0100e-003	5.8900e-003	282.0707
Total	**0.0911**	**0.5503**	**1.1036**	**5.2100e-003**	**0.4076**	**4.6800e-003**	**0.4122**	**0.1097**	**4.4100e-003**	**0.1142**		**544.2105**	**544.2105**	**0.0165**	**0.0448**	**557.9688**

Cherry Avenue Warehouse - 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 - 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/day										lb/day					
Fugitive Dust					9.7662	0.0000	9.7662	3.7159	0.0000	3.7159			0.0000			0.0000
Off-Road	3.5720	34.1963	25.6749	0.0670		1.4655	1.4655		1.3482	1.3482	0.0000	6,487.7523	6,487.7523	2.0983		6,540.2091
Total	**3.5720**	**34.1963**	**25.6749**	**0.0670**	**9.7662**	**1.4655**	**11.2316**	**3.7159**	**1.3482**	**5.0641**	**0.0000**	**6,487.7523**	**6,487.7523**	**2.0983**		**6,540.2091**

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/day					
Hauling	2.2200e-003	0.1346	0.0365	5.9000e-004	0.0179	8.5000e-004	0.0187	4.9100e-003	8.2000e-004	5.7300e-003		65.1661	65.1661	3.6800e-003	0.0104	68.3430
Vendor	9.3600e-003	0.3605	0.1199	1.8500e-003	0.0662	1.9900e-003	0.0682	0.0191	1.9000e-003	0.0210		198.8801	198.8801	6.7800e-003	0.0285	207.5552
Worker	0.0795	0.0552	0.9472	2.7700e-003	0.3235	1.8400e-003	0.3253	0.0858	1.6900e-003	0.0875		280.1643	280.1643	6.0100e-003	5.8900e-003	282.0707
Total	**0.0911**	**0.5503**	**1.1036**	**5.2100e-003**	**0.4076**	**4.6800e-003**	**0.4122**	**0.1097**	**4.4100e-003**	**0.1142**		**544.2105**	**544.2105**	**0.0165**	**0.0448**	**557.9688**

Cherry Avenue Warehouse - 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 - 2024

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/day										lb/day					
Off-Road	2.8959	26.5180	31.0791	0.0530		1.1954	1.1954		1.1251	1.1251		5,027.6271	5,027.6271	1.1816		5,057.1673
Total	**2.8959**	**26.5180**	**31.0791**	**0.0530**		**1.1954**	**1.1954**		**1.1251**	**1.1251**		**5,027.6271**	**5,027.6271**	**1.1816**		**5,057.1673**

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/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0495	1.9056	0.6339	9.7600e-003	0.3499	0.0105	0.3604	0.1007	0.0101	0.1108		1,051.2235	1,051.2235	0.0358	0.1509	1,097.0773
Worker	0.4423	0.3074	5.2713	0.0154	1.8003	0.0102	1.8105	0.4774	9.4100e-003	0.4868		1,559.1750	1,559.1750	0.0334	0.0328	1,569.7848
Total	**0.4918**	**2.2130**	**5.9052**	**0.0252**	**2.1502**	**0.0207**	**2.1709**	**0.5781**	**0.0195**	**0.5976**		**2,610.3985**	**2,610.3985**	**0.0693**	**0.1837**	**2,666.8621**

Cherry Avenue Warehouse - 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 - 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/day										lb/day					
Off-Road	2.8959	26.5180	31.0791	0.0530		1.1954	1.1954		1.1251	1.1251	0.0000	5,027.6271	5,027.6271	1.1816		5,057.1673
Total	**2.8959**	**26.5180**	**31.0791**	**0.0530**		**1.1954**	**1.1954**		**1.1251**	**1.1251**	**0.0000**	**5,027.6271**	**5,027.6271**	**1.1816**		**5,057.1673**

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/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	0.0495	1.9056	0.6339	9.7600e-003	0.3499	0.0105	0.3604	0.1007	0.0101	0.1108		1,051.2235	1,051.2235	0.0358	0.1509	1,097.0773
Worker	0.4423	0.3074	5.2713	0.0154	1.8003	0.0102	1.8105	0.4774	9.4100e-003	0.4868		1,559.1750	1,559.1750	0.0334	0.0328	1,569.7848
Total	**0.4918**	**2.2130**	**5.9052**	**0.0252**	**2.1502**	**0.0207**	**2.1709**	**0.5781**	**0.0195**	**0.5976**		**2,610.3985**	**2,610.3985**	**0.0693**	**0.1837**	**2,666.8621**

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

3.5 Building Construction - 2025

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/day										lb/day					
Off-Road	2.6931	24.5790	30.9123	0.0531		1.0314	1.0314		0.9707	0.9707		5,029.1105	5,029.1105	1.1748		5,058.4800
Total	**2.6931**	**24.5790**	**30.9123**	**0.0531**		**1.0314**	**1.0314**		**0.9707**	**0.9707**		**5,029.1105**	**5,029.1105**	**1.1748**		**5,058.4800**

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/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0479	1.8965	0.6211	9.5800e-003	0.3499	0.0106	0.3604	0.1007	0.0101	0.1108		1,032.2849	1,032.2849	0.0361	0.1483	1,077.3672
Worker	0.4137	0.2756	4.8988	0.0149	1.8003	9.7300e-003	1.8100	0.4774	8.9500e-003	0.4864		1,506.0588	1,506.0588	0.0301	0.0306	1,515.9312
Total	**0.4616**	**2.1722**	**5.5199**	**0.0245**	**2.1502**	**0.0203**	**2.1704**	**0.5781**	**0.0190**	**0.5971**		**2,538.3437**	**2,538.3437**	**0.0662**	**0.1789**	**2,593.2984**

Cherry Avenue Warehouse - 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 - 2025

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/day										lb/day					
Off-Road	2.6931	24.5790	30.9123	0.0531		1.0314	1.0314		0.9707	0.9707	0.0000	5,029.1105	5,029.1105	1.1748		5,058.4800
Total	**2.6931**	**24.5790**	**30.9123**	**0.0531**		**1.0314**	**1.0314**		**0.9707**	**0.9707**	**0.0000**	**5,029.1105**	**5,029.1105**	**1.1748**		**5,058.4800**

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/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	0.0479	1.8965	0.6211	9.5800e-003	0.3499	0.0106	0.3604	0.1007	0.0101	0.1108		1,032.2849	1,032.2849	0.0361	0.1483	1,077.3672
Worker	0.4137	0.2756	4.8988	0.0149	1.8003	9.7300e-003	1.8100	0.4774	8.9500e-003	0.4864		1,506.0588	1,506.0588	0.0301	0.0306	1,515.9312
Total	**0.4616**	**2.1722**	**5.5199**	**0.0245**	**2.1502**	**0.0203**	**2.1704**	**0.5781**	**0.0190**	**0.5971**		**2,538.3437**	**2,538.3437**	**0.0662**	**0.1789**	**2,593.2984**

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

3.6 Architectural Coating - 2025

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/day										lb/day					
Archit. Coating	51.2958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1342	1.3571	2.3089	3.2300e-003		0.0532	0.0532		0.0490	0.0490		312.7240	312.7240	0.1011		315.2525
Total	**51.4300**	**1.3571**	**2.3089**	**3.2300e-003**		**0.0532**	**0.0532**		**0.0490**	**0.0490**		**312.7240**	**312.7240**	**0.1011**		**315.2525**

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/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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	0.0840	0.0560	0.9951	3.0300e-003	0.3657	1.9800e-003	0.3677	0.0970	1.8200e-003	0.0988		305.9182	305.9182	6.1100e-003	6.2200e-003	307.9235
Total	**0.0840**	**0.0560**	**0.9951**	**3.0300e-003**	**0.3657**	**1.9800e-003**	**0.3677**	**0.0970**	**1.8200e-003**	**0.0988**		**305.9182**	**305.9182**	**6.1100e-003**	**6.2200e-003**	**307.9235**

Cherry Avenue Warehouse - 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 Architectural Coating - 2025

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/day										lb/day					
Archit. Coating	51.2958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1342	1.3571	2.3089	3.2300e-003		0.0532	0.0532		0.0490	0.0490	0.0000	312.7240	312.7240	0.1011		315.2525
Total	**51.4300**	**1.3571**	**2.3089**	**3.2300e-003**		**0.0532**	**0.0532**		**0.0490**	**0.0490**	**0.0000**	**312.7240**	**312.7240**	**0.1011**		**315.2525**

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/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	0.0840	0.0560	0.9951	3.0300e-003	0.3657	1.9800e-003	0.3677	0.0970	1.8200e-003	0.0988		305.9182	305.9182	6.1100e-003	6.2200e-003	307.9235
Total	**0.0840**	**0.0560**	**0.9951**	**3.0300e-003**	**0.3657**	**1.9800e-003**	**0.3677**	**0.0970**	**1.8200e-003**	**0.0988**		**305.9182**	**305.9182**	**6.1100e-003**	**6.2200e-003**	**307.9235**

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

3.7 Paving - 2025

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/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.6967					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6119**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

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/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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	0.0485	0.0323	0.5741	1.7500e-003	0.2110	1.1400e-003	0.2121	0.0559	1.0500e-003	0.0570		176.4913	176.4913	3.5200e-003	3.5900e-003	177.6482
Total	**0.0485**	**0.0323**	**0.5741**	**1.7500e-003**	**0.2110**	**1.1400e-003**	**0.2121**	**0.0559**	**1.0500e-003**	**0.0570**		**176.4913**	**176.4913**	**3.5200e-003**	**3.5900e-003**	**177.6482**

Cherry Avenue Warehouse - 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 Paving - 2025

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/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.6967					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6119**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

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/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	0.0485	0.0323	0.5741	1.7500e-003	0.2110	1.1400e-003	0.2121	0.0559	1.0500e-003	0.0570		176.4913	176.4913	3.5200e-003	3.5900e-003	177.6482
Total	**0.0485**	**0.0323**	**0.5741**	**1.7500e-003**	**0.2110**	**1.1400e-003**	**0.2121**	**0.0559**	**1.0500e-003**	**0.0570**		**176.4913**	**176.4913**	**3.5200e-003**	**3.5900e-003**	**177.6482**

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	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	2.1503	2.2630	23.2067	0.0537	5.8221	0.0375	5.8596	1.5509	0.0348	1.5857		5,477.8700	5,477.8700	0.3415	0.2108	5,549.2309
Unmitigated	2.1503	2.2630	23.2067	0.0537	5.8221	0.0375	5.8596	1.5509	0.0348	1.5857		5,477.8700	5,477.8700	0.3415	0.2108	5,549.2309

4.2 Trip Summary Information

	Average Daily Trip Rate			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	645.20	645.20	645.20	2,765,148	2,765,148
User Defined Industrial	0.00	0.00	0.00		
Total	645.20	645.20	645.20	2,765,148	2,765,148

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
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	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

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

	Miles			Trip %			Trip Purpose %		
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
User Defined Industrial	16.60	8.40	6.90	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	0.540171	0.064547	0.189075	0.126673	0.023412	0.006384	0.010926	0.008089	0.000929	0.000597	0.025155	0.000706	0.003335
Parking Lot	0.540171	0.064547	0.189075	0.126673	0.023412	0.006384	0.010926	0.008089	0.000929	0.000597	0.025155	0.000706	0.003335
Refrigerated Warehouse-No Rail	0.540171	0.064547	0.189075	0.126673	0.023412	0.006384	0.010926	0.008089	0.000929	0.000597	0.025155	0.000706	0.003335
User Defined Industrial	0.540171	0.064547	0.189075	0.126673	0.023412	0.006384	0.010926	0.008089	0.000929	0.000597	0.025155	0.000706	0.003335

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/day										lb/day					
NaturalGas Mitigated	9.1700e-003	0.0834	0.0700	5.0000e-004		6.3400e-003	6.3400e-003		6.3400e-003	6.3400e-003		100.0583	100.0583	1.9200e-003	1.8300e-003	100.6529
NaturalGas Unmitigated	9.1700e-003	0.0834	0.0700	5.0000e-004		6.3400e-003	6.3400e-003		6.3400e-003	6.3400e-003		100.0583	100.0583	1.9200e-003	1.8300e-003	100.6529

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

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/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	850.496	9.1700e-003	0.0834	0.0700	5.0000e-004		6.3400e-003	6.3400e-003		6.3400e-003	6.3400e-003		100.0583	100.0583	1.9200e-003	1.8300e-003	100.6529
User Defined Industrial	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		**9.1700e-003**	**0.0834**	**0.0700**	**5.0000e-004**		**6.3400e-003**	**6.3400e-003**		**6.3400e-003**	**6.3400e-003**		**100.0583**	**100.0583**	**1.9200e-003**	**1.8300e-003**	**100.6529**

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

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/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	0.850496	9.1700e-003	0.0834	0.0700	5.0000e-004		6.3400e-003	6.3400e-003		6.3400e-003	6.3400e-003		100.0583	100.0583	1.9200e-003	1.8300e-003	100.6529
User Defined Industrial	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		**9.1700e-003**	**0.0834**	**0.0700**	**5.0000e-004**		**6.3400e-003**	**6.3400e-003**		**6.3400e-003**	**6.3400e-003**		**100.0583**	**100.0583**	**1.9200e-003**	**1.8300e-003**	**100.6529**

6.0 Area Detail

6.1 Mitigation Measures Area

Cherry Avenue Warehouse - 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	6.8103	1.1100e-003	0.1230	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2642	0.2642	6.9000e-004		0.2814
Unmitigated	6.8103	1.1100e-003	0.1230	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2642	0.2642	6.9000e-004		0.2814

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	0.7730					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0260					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0113	1.1100e-003	0.1230	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2642	0.2642	6.9000e-004		0.2814
Total	**6.8103**	**1.1100e-003**	**0.1230**	**1.0000e-005**		**4.4000e-004**	**4.4000e-004**		**4.4000e-004**	**4.4000e-004**		**0.2642**	**0.2642**	**6.9000e-004**		**0.2814**

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					
Architectural Coating	0.7730					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0260					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0113	1.1100e-003	0.1230	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2642	0.2642	6.9000e-004		0.2814
Total	**6.8103**	**1.1100e-003**	**0.1230**	**1.0000e-005**		**4.4000e-004**	**4.4000e-004**		**4.4000e-004**	**4.4000e-004**		**0.2642**	**0.2642**	**6.9000e-004**		**0.2814**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.5	50	300	0.73	Diesel
Fire Pump	1	0.5	50	1500	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (300 - 600 HP)	0.2462	0.6880	0.6277	1.1800e-003		0.0362	0.0362		0.0362	0.0362		125.9271	125.9271	0.0177		126.3685
Fire Pump - Diesel (750 - 9999 HP)	1.2308	5.5041	3.1383	5.9100e-003		0.1811	0.1811		0.1811	0.1811		629.6356	629.6356	0.0883		631.8425
Total	**1.4770**	**6.1921**	**3.7659**	**7.0900e-003**		**0.2173**	**0.2173**		**0.2173**	**0.2173**		**755.5627**	**755.5627**	**0.1059**		**758.2110**

11.0 Vegetation

Cherry Avenue Warehouse - 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

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Refrigerated Warehouse-No Rail	304.34	1000sqft	6.99	304,344.00	0
User Defined Industrial	304.00	User Defined Unit	0.00	0.00	0
Other Asphalt Surfaces	261.00	1000sqft	5.99	0.00	0
Parking Lot	338.00	Space	1.19	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the DEIR's model.

Land Use - Consistent with the DEIR's model.

Construction Phase - Consistent with the DEIR's model.

Off-road Equipment - Consistent with the DEIR's model.

Off-road Equipment - Consistent with the DEIR's model.

Off-road Equipment - Consistent with the DEIR's model.

Off-road Equipment - Consistent with the DEIR's model.

Off-road Equipment - Consistent with the DEIR's model.

Off-road Equipment - Consistent with the DEIR's model.

Cherry Avenue Warehouse - 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

Trips and VMT - Consistent with the DEIR's model.

Demolition - Consistent with the DEIR's model.

Grading - Consistent with the DEIR's model.

Architectural Coating - See SWAPE's comment on "Unsubstantiated Changes to Architectural Coating Emission Factors."

Vehicle Trips - See SWAPE's comment "Underestimated Operational Vehicle Trips."

Vehicle Emission Factors -

Vehicle Emission Factors -

Area Coating - See SWAPE's comment "Unsubstantiated Changes to Architectural Coating Emission Factors."

Energy Use - Consistent with the DEIR's model.

Fleet Mix - See SWAPE's comment "Unsubstantiated Changes to Operational Fleet Mix Values."

Stationary Sources - Emergency Generators and Fire Pumps - Consistent with the DEIR's model.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	55.00
tblConstructionPhase	NumDays	300.00	200.00
tblConstructionPhase	NumDays	20.00	25.00
tblConstructionPhase	NumDays	30.00	35.00
tblConstructionPhase	NumDays	20.00	27.00
tblEnergyUse	T24E	0.37	0.00
tblGrading	AcresOfGrading	15.00	35.00
tblGrading	MaterialExported	0.00	10,000.00
tblLandUse	LandUseSquareFeet	304,340.00	304,344.00
tblLandUse	LandUseSquareFeet	261,000.00	0.00
tblLandUse	LandUseSquareFeet	135,200.00	0.00
tblLandUse	LotAcreage	3.04	1.19
tblOffRoadEquipment	HorsePower	212.00	97.00
tblOffRoadEquipment	HorsePower	168.00	78.00
tblOffRoadEquipment	LoadFactor	0.43	0.37
tblOffRoadEquipment	LoadFactor	0.40	0.48

Cherry Avenue Warehouse - 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

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	300.00
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	1,500.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.50
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.50
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	2,373.00	240.00
tblTripsAndVMT	HaulingTripNumber	1,250.00	35.70
tblTripsAndVMT	VendorTripLength	6.90	10.20
tblTripsAndVMT	VendorTripLength	6.90	10.20
tblTripsAndVMT	VendorTripLength	6.90	10.20
tblTripsAndVMT	VendorTripLength	6.90	10.20
tblTripsAndVMT	VendorTripLength	6.90	10.20
tblTripsAndVMT	VendorTripLength	6.90	10.20
tblTripsAndVMT	VendorTripNumber	0.00	5.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	7.00

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

tblTripsAndVMT	VendorTripNumber	50.00	37.00
tblTripsAndVMT	WorkerTripLength	14.70	18.50
tblTripsAndVMT	WorkerTripLength	14.70	18.50
tblTripsAndVMT	WorkerTripLength	14.70	18.50
tblTripsAndVMT	WorkerTripLength	14.70	18.50
tblTripsAndVMT	WorkerTripLength	14.70	18.50
tblTripsAndVMT	WorkerTripLength	14.70	18.50

2.0 Emissions Summary

Cherry Avenue Warehouse - 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	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	3.7759	34.7746	36.5407	0.0818	22.0501	1.4702	23.2814	10.4040	1.3526	11.5369	0.0000	7,989.1203	7,989.1203	2.1147	0.1862	8,074.8868
2025	56.3790	36.9020	54.3434	0.1073	2.7268	1.5266	4.2534	0.7310	1.4267	2.1577	0.0000	10,465.8385	10,465.8385	2.0655	0.1917	10,574.5985
Maximum	**56.3790**	**36.9020**	**54.3434**	**0.1073**	**22.0501**	**1.5266**	**23.2814**	**10.4040**	**1.4267**	**11.5369**	**0.0000**	**10,465.8385**	**10,465.8385**	**2.1147**	**0.1917**	**10,574.5985**

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	lb/day										lb/day					
2024	3.7759	34.7746	36.5407	0.0818	22.0501	1.4702	23.2814	10.4040	1.3526	11.5369	0.0000	7,989.1203	7,989.1203	2.1147	0.1862	8,074.8868
2025	56.3790	36.9020	54.3434	0.1073	2.7268	1.5266	4.2534	0.7310	1.4267	2.1577	0.0000	10,465.8385	10,465.8385	2.0655	0.1917	10,574.5985
Maximum	**56.3790**	**36.9020**	**54.3434**	**0.1073**	**22.0501**	**1.5266**	**23.2814**	**10.4040**	**1.4267**	**11.5369**	**0.0000**	**10,465.8385**	**10,465.8385**	**2.1147**	**0.1917**	**10,574.5985**

Cherry Avenue Warehouse - 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	CO	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**

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/day										lb/day					
Area	6.8103	1.1100e-003	0.1230	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2642	0.2642	6.9000e-004		0.2814
Energy	9.1700e-003	0.0834	0.0700	5.0000e-004		6.3400e-003	6.3400e-003		6.3400e-003	6.3400e-003		100.0583	100.0583	1.9200e-003	1.8300e-003	100.6529
Mobile	2.1198	2.4422	22.5859	0.0514	5.8221	0.0375	5.8596	1.5509	0.0348	1.5857		5,246.3727	5,246.3727	0.3490	0.2198	5,320.5834
Stationary	1.4770	6.1921	3.7659	7.1000e-003		0.2173	0.2173		0.2173	0.2173		755.5627	755.5627	0.1059		758.2110
Total	**10.4162**	**8.7188**	**26.5448**	**0.0590**	**5.8221**	**0.2615**	**6.0836**	**1.5509**	**0.2589**	**1.8098**		**6,102.2579**	**6,102.2579**	**0.4575**	**0.2216**	**6,179.7287**

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	lb/day										lb/day					
Area	6.8103	1.1100e-003	0.1230	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2642	0.2642	6.9000e-004		0.2814
Energy	9.1700e-003	0.0834	0.0700	5.0000e-004		6.3400e-003	6.3400e-003		6.3400e-003	6.3400e-003		100.0583	100.0583	1.9200e-003	1.8300e-003	100.6529
Mobile	2.1198	2.4422	22.5859	0.0514	5.8221	0.0375	5.8596	1.5509	0.0348	1.5857		5,246.3727	5,246.3727	0.3490	0.2198	5,320.5834
Stationary	1.4770	6.1921	3.7659	7.1000e-003		0.2173	0.2173		0.2173	0.2173		755.5627	755.5627	0.1059		758.2110
Total	**10.4162**	**8.7188**	**26.5448**	**0.0590**	**5.8221**	**0.2615**	**6.0836**	**1.5509**	**0.2589**	**1.8098**		**6,102.2579**	**6,102.2579**	**0.4575**	**0.2216**	**6,179.7287**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/25/2024	8/28/2024	5	25	
2	Site Preparation	Site Preparation	8/29/2024	9/11/2024	5	10	
3	Grading	Grading	9/12/2024	10/30/2024	5	35	
4	Building Construction	Building Construction	10/31/2024	8/6/2025	5	200	

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

5	Architectural Coating	Architectural Coating	5/22/2025	8/6/2025	5	55	
6	Paving	Paving	7/1/2025	8/6/2025	5	27	

Acres of Grading (Site Preparation Phase): 35

Acres of Grading (Grading Phase): 122.5

Acres of Paving: 7.18

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 456,516; Non-Residential Outdoor: 152,172; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Crushing/Proc. Equipment	1	8.00	85	0.78
Demolition	Excavators	3	8.00	158	0.38
Demolition	Off-Highway Trucks	2	8.00	402	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Crawler Tractors	1	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Off-Highway Trucks	1	8.00	402	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	4	4.00	367	0.48
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

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

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	Other Material Handling Equipment	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	9	23.00	5.00	240.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	2.00	0.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	23.00	7.00	35.70	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	16	128.00	37.00	0.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	26.00	0.00	0.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Cherry Avenue Warehouse - 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 - 2024

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/day										lb/day					
Fugitive Dust					20.5430	0.0000	20.5430	3.1104	0.0000	3.1104			0.0000			0.0000
Off-Road	3.6634	30.3274	30.5308	0.0723		1.3308	1.3308		1.2436	1.2436		6,972.6537	6,972.6537	1.9141		7,020.5055
Total	**3.6634**	**30.3274**	**30.5308**	**0.0723**	**20.5430**	**1.3308**	**21.8738**	**3.1104**	**1.2436**	**4.3540**		**6,972.6537**	**6,972.6537**	**1.9141**		**7,020.5055**

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/day										lb/day					
Hauling	0.0193	1.3114	0.3448	5.5300e-003	0.1681	7.9900e-003	0.1760	0.0461	7.6400e-003	0.0537		608.8670	608.8670	0.0342	0.0967	638.5473
Vendor	6.5300e-003	0.2692	0.0879	1.3200e-003	0.0473	1.4300e-003	0.0487	0.0136	1.3600e-003	0.0150		142.2269	142.2269	4.8300e-003	0.0204	148.4353
Worker	0.0866	0.0610	0.8645	2.6300e-003	0.3235	1.8400e-003	0.3253	0.0858	1.6900e-003	0.0875		265.3727	265.3727	6.0200e-003	6.2900e-003	267.3987
Total	**0.1125**	**1.6415**	**1.2972**	**9.4800e-003**	**0.5388**	**0.0113**	**0.5501**	**0.1455**	**0.0107**	**0.1562**		**1,016.4666**	**1,016.4666**	**0.0451**	**0.1235**	**1,054.3813**

Cherry Avenue Warehouse - 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 - 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/day										lb/day					
Fugitive Dust					20.5430	0.0000	20.5430	3.1104	0.0000	3.1104			0.0000			0.0000
Off-Road	3.6634	30.3274	30.5308	0.0723		1.3308	1.3308		1.2436	1.2436	0.0000	6,972.6537	6,972.6537	1.9141		7,020.5055
Total	**3.6634**	**30.3274**	**30.5308**	**0.0723**	**20.5430**	**1.3308**	**21.8738**	**3.1104**	**1.2436**	**4.3540**	**0.0000**	**6,972.6537**	**6,972.6537**	**1.9141**		**7,020.5055**

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/day					
Hauling	0.0193	1.3114	0.3448	5.5300e-003	0.1681	7.9900e-003	0.1760	0.0461	7.6400e-003	0.0537		608.8670	608.8670	0.0342	0.0967	638.5473
Vendor	6.5300e-003	0.2692	0.0879	1.3200e-003	0.0473	1.4300e-003	0.0487	0.0136	1.3600e-003	0.0150		142.2269	142.2269	4.8300e-003	0.0204	148.4353
Worker	0.0866	0.0610	0.8645	2.6300e-003	0.3235	1.8400e-003	0.3253	0.0858	1.6900e-003	0.0875		265.3727	265.3727	6.0200e-003	6.2900e-003	267.3987
Total	**0.1125**	**1.6415**	**1.2972**	**9.4800e-003**	**0.5388**	**0.0113**	**0.5501**	**0.1455**	**0.0107**	**0.1562**		**1,016.4666**	**1,016.4666**	**0.0451**	**0.1235**	**1,054.3813**

Cherry Avenue Warehouse - 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 - 2024

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/day										lb/day					
Fugitive Dust					21.7780	0.0000	21.7780	10.3315	0.0000	10.3315			0.0000			0.0000
Off-Road	2.6609	27.1760	18.3356	0.0381		1.2294	1.2294		1.1310	1.1310		3,688.0100	3,688.0100	1.1928		3,717.8294
Total	**2.6609**	**27.1760**	**18.3356**	**0.0381**	**21.7780**	**1.2294**	**23.0074**	**10.3315**	**1.1310**	**11.4625**		**3,688.0100**	**3,688.0100**	**1.1928**		**3,717.8294**

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/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.6100e-003	0.1077	0.0352	5.3000e-004	0.0189	5.7000e-004	0.0195	5.4400e-003	5.5000e-004	5.9900e-003		56.8908	56.8908	1.9300e-003	8.1700e-003	59.3741
Worker	0.0678	0.0478	0.6766	2.0500e-003	0.2532	1.4400e-003	0.2546	0.0671	1.3200e-003	0.0685		207.6830	207.6830	4.7100e-003	4.9300e-003	209.2686
Total	**0.0704**	**0.1554**	**0.7118**	**2.5800e-003**	**0.2721**	**2.0100e-003**	**0.2741**	**0.0726**	**1.8700e-003**	**0.0745**		**264.5737**	**264.5737**	**6.6400e-003**	**0.0131**	**268.6427**

Cherry Avenue Warehouse - 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 - 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/day										lb/day					
Fugitive Dust					21.7780	0.0000	21.7780	10.3315	0.0000	10.3315			0.0000			0.0000
Off-Road	2.6609	27.1760	18.3356	0.0381		1.2294	1.2294		1.1310	1.1310	0.0000	3,688.0100	3,688.0100	1.1928		3,717.8294
Total	**2.6609**	**27.1760**	**18.3356**	**0.0381**	**21.7780**	**1.2294**	**23.0074**	**10.3315**	**1.1310**	**11.4625**	**0.0000**	**3,688.0100**	**3,688.0100**	**1.1928**		**3,717.8294**

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/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	2.6100e-003	0.1077	0.0352	5.3000e-004	0.0189	5.7000e-004	0.0195	5.4400e-003	5.5000e-004	5.9900e-003		56.8908	56.8908	1.9300e-003	8.1700e-003	59.3741
Worker	0.0678	0.0478	0.6766	2.0500e-003	0.2532	1.4400e-003	0.2546	0.0671	1.3200e-003	0.0685		207.6830	207.6830	4.7100e-003	4.9300e-003	209.2686
Total	**0.0704**	**0.1554**	**0.7118**	**2.5800e-003**	**0.2721**	**2.0100e-003**	**0.2741**	**0.0726**	**1.8700e-003**	**0.0745**		**264.5737**	**264.5737**	**6.6400e-003**	**0.0131**	**268.6427**

Cherry Avenue Warehouse - 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 - 2024

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/day										lb/day					
Fugitive Dust					9.7662	0.0000	9.7662	3.7159	0.0000	3.7159			0.0000			0.0000
Off-Road	3.5720	34.1963	25.6749	0.0670		1.4655	1.4655		1.3482	1.3482		6,487.7523	6,487.7523	2.0983		6,540.2091
Total	**3.5720**	**34.1963**	**25.6749**	**0.0670**	**9.7662**	**1.4655**	**11.2316**	**3.7159**	**1.3482**	**5.0641**		**6,487.7523**	**6,487.7523**	**2.0983**		**6,540.2091**

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/day										lb/day					
Hauling	2.0700e-003	0.1405	0.0369	5.9000e-004	0.0179	8.6000e-004	0.0188	4.9100e-003	8.2000e-004	5.7300e-003		65.2358	65.2358	3.6700e-003	0.0104	68.4158
Vendor	9.1400e-003	0.3768	0.1230	1.8500e-003	0.0662	2.0000e-003	0.0682	0.0191	1.9100e-003	0.0210		199.1177	199.1177	6.7600e-003	0.0286	207.8094
Worker	0.0866	0.0610	0.8645	2.6300e-003	0.3235	1.8400e-003	0.3253	0.0858	1.6900e-003	0.0875		265.3727	265.3727	6.0200e-003	6.2900e-003	267.3987
Total	**0.0978**	**0.5783**	**1.0245**	**5.0700e-003**	**0.4076**	**4.7000e-003**	**0.4123**	**0.1097**	**4.4200e-003**	**0.1142**		**529.7261**	**529.7261**	**0.0165**	**0.0453**	**543.6239**

Cherry Avenue Warehouse - 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 - 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/day										lb/day					
Fugitive Dust					9.7662	0.0000	9.7662	3.7159	0.0000	3.7159			0.0000			0.0000
Off-Road	3.5720	34.1963	25.6749	0.0670		1.4655	1.4655		1.3482	1.3482	0.0000	6,487.7523	6,487.7523	2.0983		6,540.2091
Total	**3.5720**	**34.1963**	**25.6749**	**0.0670**	**9.7662**	**1.4655**	**11.2316**	**3.7159**	**1.3482**	**5.0641**	**0.0000**	**6,487.7523**	**6,487.7523**	**2.0983**		**6,540.2091**

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/day					
Hauling	2.0700e-003	0.1405	0.0369	5.9000e-004	0.0179	8.6000e-004	0.0188	4.9100e-003	8.2000e-004	5.7300e-003		65.2358	65.2358	3.6700e-003	0.0104	68.4158
Vendor	9.1400e-003	0.3768	0.1230	1.8500e-003	0.0662	2.0000e-003	0.0682	0.0191	1.9100e-003	0.0210		199.1177	199.1177	6.7600e-003	0.0286	207.8094
Worker	0.0866	0.0610	0.8645	2.6300e-003	0.3235	1.8400e-003	0.3253	0.0858	1.6900e-003	0.0875		265.3727	265.3727	6.0200e-003	6.2900e-003	267.3987
Total	**0.0978**	**0.5783**	**1.0245**	**5.0700e-003**	**0.4076**	**4.7000e-003**	**0.4123**	**0.1097**	**4.4200e-003**	**0.1142**		**529.7261**	**529.7261**	**0.0165**	**0.0453**	**543.6239**

Cherry Avenue Warehouse - 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 - 2024

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/day										lb/day					
Off-Road	2.8959	26.5180	31.0791	0.0530		1.1954	1.1954		1.1251	1.1251		5,027.6271	5,027.6271	1.1816		5,057.1673
Total	**2.8959**	**26.5180**	**31.0791**	**0.0530**		**1.1954**	**1.1954**		**1.1251**	**1.1251**		**5,027.6271**	**5,027.6271**	**1.1816**		**5,057.1673**

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/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0483	1.9918	0.6503	9.7700e-003	0.3499	0.0106	0.3605	0.1007	0.0101	0.1108		1,052.4792	1,052.4792	0.0357	0.1512	1,098.4213
Worker	0.4819	0.3395	4.8114	0.0146	1.8003	0.0102	1.8105	0.4774	9.4100e-003	0.4868		1,476.8566	1,476.8566	0.0335	0.0350	1,488.1319
Total	**0.5302**	**2.3314**	**5.4616**	**0.0244**	**2.1502**	**0.0208**	**2.1709**	**0.5781**	**0.0195**	**0.5976**		**2,529.3358**	**2,529.3358**	**0.0692**	**0.1862**	**2,586.5533**

Cherry Avenue Warehouse - 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 - 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/day										lb/day					
Off-Road	2.8959	26.5180	31.0791	0.0530		1.1954	1.1954		1.1251	1.1251	0.0000	5,027.6271	5,027.6271	1.1816		5,057.1673
Total	**2.8959**	**26.5180**	**31.0791**	**0.0530**		**1.1954**	**1.1954**		**1.1251**	**1.1251**	**0.0000**	**5,027.6271**	**5,027.6271**	**1.1816**		**5,057.1673**

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/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	0.0483	1.9918	0.6503	9.7700e-003	0.3499	0.0106	0.3605	0.1007	0.0101	0.1108		1,052.4792	1,052.4792	0.0357	0.1512	1,098.4213
Worker	0.4819	0.3395	4.8114	0.0146	1.8003	0.0102	1.8105	0.4774	9.4100e-003	0.4868		1,476.8566	1,476.8566	0.0335	0.0350	1,488.1319
Total	**0.5302**	**2.3314**	**5.4616**	**0.0244**	**2.1502**	**0.0208**	**2.1709**	**0.5781**	**0.0195**	**0.5976**		**2,529.3358**	**2,529.3358**	**0.0692**	**0.1862**	**2,586.5533**

Cherry Avenue Warehouse - 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 - 2025

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/day										lb/day					
Off-Road	2.6931	24.5790	30.9123	0.0531		1.0314	1.0314		0.9707	0.9707		5,029.1105	5,029.1105	1.1748		5,058.4800
Total	**2.6931**	**24.5790**	**30.9123**	**0.0531**		**1.0314**	**1.0314**		**0.9707**	**0.9707**		**5,029.1105**	**5,029.1105**	**1.1748**		**5,058.4800**

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/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0467	1.9823	0.6374	9.5900e-003	0.3499	0.0106	0.3605	0.1007	0.0101	0.1108		1,033.5403	1,033.5403	0.0360	0.1486	1,078.7078
Worker	0.4525	0.3044	4.4738	0.0141	1.8003	9.7300e-003	1.8100	0.4774	8.9500e-003	0.4864		1,426.7218	1,426.7218	0.0302	0.0327	1,437.2131
Total	**0.4992**	**2.2867**	**5.1113**	**0.0237**	**2.1502**	**0.0203**	**2.1705**	**0.5781**	**0.0191**	**0.5972**		**2,460.2621**	**2,460.2621**	**0.0662**	**0.1812**	**2,515.9209**

Cherry Avenue Warehouse - 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 - 2025

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/day										lb/day					
Off-Road	2.6931	24.5790	30.9123	0.0531		1.0314	1.0314		0.9707	0.9707	0.0000	5,029.1105	5,029.1105	1.1748		5,058.4800
Total	**2.6931**	**24.5790**	**30.9123**	**0.0531**		**1.0314**	**1.0314**		**0.9707**	**0.9707**	**0.0000**	**5,029.1105**	**5,029.1105**	**1.1748**		**5,058.4800**

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/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	0.0467	1.9823	0.6374	9.5900e-003	0.3499	0.0106	0.3605	0.1007	0.0101	0.1108		1,033.5403	1,033.5403	0.0360	0.1486	1,078.7078
Worker	0.4525	0.3044	4.4738	0.0141	1.8003	9.7300e-003	1.8100	0.4774	8.9500e-003	0.4864		1,426.7218	1,426.7218	0.0302	0.0327	1,437.2131
Total	**0.4992**	**2.2867**	**5.1113**	**0.0237**	**2.1502**	**0.0203**	**2.1705**	**0.5781**	**0.0191**	**0.5972**		**2,460.2621**	**2,460.2621**	**0.0662**	**0.1812**	**2,515.9209**

Cherry Avenue Warehouse - 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 Architectural Coating - 2025

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/day										lb/day					
Archit. Coating	51.2958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1342	1.3571	2.3089	3.2300e-003		0.0532	0.0532		0.0490	0.0490		312.7240	312.7240	0.1011		315.2525
Total	**51.4300**	**1.3571**	**2.3089**	**3.2300e-003**		**0.0532**	**0.0532**		**0.0490**	**0.0490**		**312.7240**	**312.7240**	**0.1011**		**315.2525**

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/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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	0.0919	0.0618	0.9088	2.8700e-003	0.3657	1.9800e-003	0.3677	0.0970	1.8200e-003	0.0988		289.8029	289.8029	6.1300e-003	6.6400e-003	291.9339
Total	**0.0919**	**0.0618**	**0.9088**	**2.8700e-003**	**0.3657**	**1.9800e-003**	**0.3677**	**0.0970**	**1.8200e-003**	**0.0988**		**289.8029**	**289.8029**	**6.1300e-003**	**6.6400e-003**	**291.9339**

Cherry Avenue Warehouse - 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 Architectural Coating - 2025

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/day										lb/day					
Archit. Coating	51.2958					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1342	1.3571	2.3089	3.2300e-003		0.0532	0.0532		0.0490	0.0490	0.0000	312.7240	312.7240	0.1011		315.2525
Total	**51.4300**	**1.3571**	**2.3089**	**3.2300e-003**		**0.0532**	**0.0532**		**0.0490**	**0.0490**	**0.0000**	**312.7240**	**312.7240**	**0.1011**		**315.2525**

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/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	0.0919	0.0618	0.9088	2.8700e-003	0.3657	1.9800e-003	0.3677	0.0970	1.8200e-003	0.0988		289.8029	289.8029	6.1300e-003	6.6400e-003	291.9339
Total	**0.0919**	**0.0618**	**0.9088**	**2.8700e-003**	**0.3657**	**1.9800e-003**	**0.3677**	**0.0970**	**1.8200e-003**	**0.0988**		**289.8029**	**289.8029**	**6.1300e-003**	**6.6400e-003**	**291.9339**

Cherry Avenue Warehouse - 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 Paving - 2025

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/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.6967					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6119**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

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/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	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	0.0530	0.0357	0.5243	1.6500e-003	0.2110	1.1400e-003	0.2121	0.0559	1.0500e-003	0.0570		167.1940	167.1940	3.5400e-003	3.8300e-003	168.4234
Total	**0.0530**	**0.0357**	**0.5243**	**1.6500e-003**	**0.2110**	**1.1400e-003**	**0.2121**	**0.0559**	**1.0500e-003**	**0.0570**		**167.1940**	**167.1940**	**3.5400e-003**	**3.8300e-003**	**168.4234**

Cherry Avenue Warehouse - 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 Paving - 2025

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/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.6967					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6119**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

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/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	0.0530	0.0357	0.5243	1.6500e-003	0.2110	1.1400e-003	0.2121	0.0559	1.0500e-003	0.0570		167.1940	167.1940	3.5400e-003	3.8300e-003	168.4234
Total	**0.0530**	**0.0357**	**0.5243**	**1.6500e-003**	**0.2110**	**1.1400e-003**	**0.2121**	**0.0559**	**1.0500e-003**	**0.0570**		**167.1940**	**167.1940**	**3.5400e-003**	**3.8300e-003**	**168.4234**

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	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	2.1198	2.4422	22.5859	0.0514	5.8221	0.0375	5.8596	1.5509	0.0348	1.5857		5,246.3727	5,246.3727	0.3490	0.2198	5,320.5834
Unmitigated	2.1198	2.4422	22.5859	0.0514	5.8221	0.0375	5.8596	1.5509	0.0348	1.5857		5,246.3727	5,246.3727	0.3490	0.2198	5,320.5834

4.2 Trip Summary Information

	Average Daily Trip Rate			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	645.20	645.20	645.20	2,765,148	2,765,148
User Defined Industrial	0.00	0.00	0.00		
Total	645.20	645.20	645.20	2,765,148	2,765,148

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
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	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

Cherry Avenue Warehouse - 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 Purpose %		
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
User Defined Industrial	16.60	8.40	6.90	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	0.540171	0.064547	0.189075	0.126673	0.023412	0.006384	0.010926	0.008089	0.000929	0.000597	0.025155	0.000706	0.003335
Parking Lot	0.540171	0.064547	0.189075	0.126673	0.023412	0.006384	0.010926	0.008089	0.000929	0.000597	0.025155	0.000706	0.003335
Refrigerated Warehouse-No Rail	0.540171	0.064547	0.189075	0.126673	0.023412	0.006384	0.010926	0.008089	0.000929	0.000597	0.025155	0.000706	0.003335
User Defined Industrial	0.540171	0.064547	0.189075	0.126673	0.023412	0.006384	0.010926	0.008089	0.000929	0.000597	0.025155	0.000706	0.003335

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/day										lb/day					
NaturalGas Mitigated	9.1700e-003	0.0834	0.0700	5.0000e-004		6.3400e-003	6.3400e-003		6.3400e-003	6.3400e-003		100.0583	100.0583	1.9200e-003	1.8300e-003	100.6529
NaturalGas Unmitigated	9.1700e-003	0.0834	0.0700	5.0000e-004		6.3400e-003	6.3400e-003		6.3400e-003	6.3400e-003		100.0583	100.0583	1.9200e-003	1.8300e-003	100.6529

Cherry Avenue Warehouse - 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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/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	850.496	9.1700e-003	0.0834	0.0700	5.0000e-004		6.3400e-003	6.3400e-003		6.3400e-003	6.3400e-003		100.0583	100.0583	1.9200e-003	1.8300e-003	100.6529
User Defined Industrial	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		**9.1700e-003**	**0.0834**	**0.0700**	**5.0000e-004**		**6.3400e-003**	**6.3400e-003**		**6.3400e-003**	**6.3400e-003**		**100.0583**	**100.0583**	**1.9200e-003**	**1.8300e-003**	**100.6529**

Cherry Avenue Warehouse - 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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/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	0.850496	9.1700e-003	0.0834	0.0700	5.0000e-004		6.3400e-003	6.3400e-003		6.3400e-003	6.3400e-003		100.0583	100.0583	1.9200e-003	1.8300e-003	100.6529
User Defined Industrial	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		**9.1700e-003**	**0.0834**	**0.0700**	**5.0000e-004**		**6.3400e-003**	**6.3400e-003**		**6.3400e-003**	**6.3400e-003**		**100.0583**	**100.0583**	**1.9200e-003**	**1.8300e-003**	**100.6529**

6.0 Area Detail

6.1 Mitigation Measures Area

Cherry Avenue Warehouse - 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	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	6.8103	1.1100e-003	0.1230	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2642	0.2642	6.9000e-004		0.2814
Unmitigated	6.8103	1.1100e-003	0.1230	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2642	0.2642	6.9000e-004		0.2814

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	0.7730					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0260					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0113	1.1100e-003	0.1230	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2642	0.2642	6.9000e-004		0.2814
Total	**6.8103**	**1.1100e-003**	**0.1230**	**1.0000e-005**		**4.4000e-004**	**4.4000e-004**		**4.4000e-004**	**4.4000e-004**		**0.2642**	**0.2642**	**6.9000e-004**		**0.2814**

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					
Architectural Coating	0.7730					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0260					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0113	1.1100e-003	0.1230	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2642	0.2642	6.9000e-004		0.2814
Total	**6.8103**	**1.1100e-003**	**0.1230**	**1.0000e-005**		**4.4000e-004**	**4.4000e-004**		**4.4000e-004**	**4.4000e-004**		**0.2642**	**0.2642**	**6.9000e-004**		**0.2814**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Cherry Avenue Warehouse - 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

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.5	50	300	0.73	Diesel
Fire Pump	1	0.5	50	1500	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (300 - 600 HP)	0.2462	0.6880	0.6277	1.1800e-003		0.0362	0.0362		0.0362	0.0362		125.9271	125.9271	0.0177		126.3685
Fire Pump - Diesel (750 - 9999 HP)	1.2308	5.5041	3.1383	5.9100e-003		0.1811	0.1811		0.1811	0.1811		629.6356	629.6356	0.0883		631.8425
Total	**1.4770**	**6.1921**	**3.7659**	**7.0900e-003**		**0.2173**	**0.2173**		**0.2173**	**0.2173**		**755.5627**	**755.5627**	**0.1059**		**758.2110**

11.0 Vegetation

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

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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 aquifer 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.

VanMouwerik, 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.

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

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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_2O 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.

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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. 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 23rd 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 23rd 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 *23rd 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 Conferenc*e. 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