



# CITY OF PERRIS

## DEVELOPMENT SERVICES DEPARTMENT PLANNING DIVISION

135 N. "D" Street, Perris, CA 92570-2200  
TEL: (951) 943-5003 FAX: (951) 943-8379

June 5, 2023

Fernando Herrera  
City of Menifee  
Community Development Department  
Planning Division  
29844 Haun Road  
Menifee, CA 92586

**SUBJECT: CITY OF PERRIS COMMENTS - TRUMBLE ROAD / MAPES ROAD WAREHOUSE PROJECT - MENIFEE PLANNING CASES PLN22-015 – LOCATED ON THE SOUTHWEST CORNER OF TRUMBLE ROAD AND MAPES ROAD (APNs: 329-030-003, -048, AND -049)**

Dear Mr. Herrera:

The City of Perris appreciates the opportunity to comment on the proposed Project consisting of a 277,578 square foot industrial building on a 13.34 acre project site, located generally at the southwest corner of Trumble Road and Mapes Road within the City of Menifee.

The City provides the below comments in light of the Project's proximity to the City of Perris:

1. **California Environmental Quality Act (CEQA).** The Project needs to address the cumulative impact of all the proposed projects within a 1.5-mile radius of the proposed site to analyze, mitigate, and disclose all environmental impacts from the Proposed Project pursuant to the California Environmental Quality Act (CEQA). In addition, a health risk assessment, as further identified in this letter, would need to be prepared.
2. **Loading Area Screening** – Loading area needs to be screened from public view along Mapes Road. Recommend adding a 14 foot high decorative block wall architecturally compatible with the architecture of the building.
3. **Building Architecture.** Recommend adding a second decorative material and modulation to the north building elevation facing Mapes Road for visual interest.
4. **Transportation.** The Project needs to address the following:
  - a. Prior to further proceedings, to ensure consistency, the rights-of-way widths and alignments of Mapes Road and Sherman Road shall be coordinated with City of Perris roadway

classification. The correlation will determine the extent of roadway and intersection improvements at the intersection of Mapes Road and Sherman Road and the traffic impacts related to the project's vehicle trips. Below are City of Perris roadway classification for Mapes Road and Sherman Road.

- i. Mapes Road is classified as a Secondary Arterial (94'/64') with a 12 foot wide center turn lane median.
  - ii. Sherman Road is classified as a Major Collector (78'/56') with a 12 foot wide center turn lane median.
- b. The driveways on Mapes Road should adhere to the minimum spacing of 330 feet.
  - c. The truck route shall be defined.
  - d. According to the Traffic Study, a raised median is to be installed on Mapes Road; a conceptual signing and striping plan for Mapes Road from Sherman Road to Trumble Road, to include the extent and any features of the median, shall be submitted for review and approval.
  - e. Conceptual signing and striping plan for Sherman Road at Mapes Road, and Trumble Road from Hwy. 74 to Mapes Road, shall also submitted for review and approval.
  - f. The existing pavement on Trumble Road and Mapes Road shall be removed and replaced with asphalt pavement using a TI of 10.0 and PG 70-10.
  - g. The intersections of Mapes Road and Trumble Road and Mapes Road and Sherman Road shall be concrete paved (per Caltrans standards) to mitigate truck impacts and degradation
  - h. The truck designated driveways shall also be concrete paved (per Caltrans standards) to mitigate truck impacts and degradation.

**5. Drainage.** The Project needs to address the following:

- a. The proposed drainage conveyance impacts Master Drainage Plan Line B; improvement plans, reports and studies for the proposed drainage pattern shall be reviewed and approved by City of Perris and Riverside County Flood Control and Water Conservation District (RCFCD).
- b. Collection and conveyance of tributary runoff shall be defined and mitigated.
- c. The project proposes to discharge 33.4 cfs onto Mapes Road via a parkway drain; typically discharge via a parkway drain is limited, details of such facility/system shall be provided for review and approval.

**6. Health Risk Assessment Study.** A Health Risk Assessment is required under the *Sierra Club v. City of Fresno* case to evaluate health impacts on nearby residents.

**7. CEQA.** Please provide future notices prepared for the Project pursuant to the California Environmental Quality Act ("CEQA") under any provision of Title 7 of the California Government Code governing California Planning and Zoning Law which includes: notices of any public hearing held pursuant to CEQA, and notices of any scoping meeting held pursuant to Public Resources Code Section 21083.9.

The City of Perris thanks you for considering these comments. Please feel free to contact me at (951) 943-5003, extension 355, if you have any questions or would like to discuss the above concern in further detail.

Sincerely,



Patricia Brenes  
Planning Manager

cc: Clara Miramontes, City Manager  
Wendell Bugtai, Assistant City Manager  
Robert Khuu, City Attorney  
Kenneth Phung, Director of Development Services  
John Pourkazemi, Interim City Engineer

## Fernando Herrera

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**From:** A S <asalcido.07@gmail.com>  
**Sent:** Sunday, June 4, 2023 12:53 PM  
**To:** Fernando Herrera  
**Cc:** Unknown; jbourgeois029@gmail.com; Terrance Lucio; PATRICK HANINGER  
**Subject:** Mapes and Sherman Commerce Center

**Categories:** Public Comment

You don't often get email from asalcido.07@gmail.com. [Learn why this is important](#)

**[CAUTION]:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good Afternoon Mr. Herrera,

Please provide any updates to the above mentioned project.

I am requesting under Public Resource Code Section 21092.2 to add the email addresses and mailing address below to the notification list, regarding any subsequent environmental documents, public notices, public hearings, and notices of determination for this project.

[t.lucio57@gmail.com](mailto:t.lucio57@gmail.com)

[phaninger1@gmail.com](mailto:phaninger1@gmail.com)

[jbourg2271@aol.com](mailto:jbourg2271@aol.com)

[jbourgeois029@gmail.com](mailto:jbourgeois029@gmail.com)

[asalcido.07@gmail.com](mailto:asalcido.07@gmail.com)

Mailing Address:

P.O. Box 79222

Corona, CA 92877

Please confirm receipt of this email.

Thank You,

Adam Salcido

## Fernando Herrera

---

**From:** David Bonfanti <davidbonfanti@hotmail.com>  
**Sent:** Saturday, May 20, 2023 6:22 PM  
**To:** Fernando Herrera  
**Subject:** Shipping, warehouse construction

**Categories:** Public Comment

[You don't often get email from davidbonfanti@hotmail.com. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification> ]

[CAUTION]: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello and good afternoon Mr. Herrera,

For starters, I'd like to thank you for your service to the city of Menifee. That said, I'd like to voice my opposition to this proposed warehouse. Menifee would like to keep its old time, old town feel & charm.

Moreover, just because we can do something, honestly, does it mean we should. It's going to create havoc as far as traffic, among other concerns. And I don't know if we need the noise, pollution, and the air pollution,

On the other hand, I get the point about construction adding jobs. But the same thing could be said by Philip Morris tobacco. Yes, a lot of people lose their jobs, if we stop smoking, or limit cigarette access, for instance, but how many lives are better for it?

Thank you for taking the time to read my email. Mr. Herrera.

In good health,

David Bonfanti, LMFT.  
(818)274-7677

Sent from my iPhone

## Fernando Herrera

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**From:** Debra Phistry <debra.phistry@bhhscaproperties.com>  
**Sent:** Sunday, May 21, 2023 2:11 PM  
**To:** Fernando Herrera  
**Subject:** Warehouses

**Categories:** Public Comment

You don't often get email from debra.phistry@bhhscaproperties.com. [Learn why this is important](#)

**[CAUTION]:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Please don't put any major warehouses in Menifee. It produced smog from trucks & extra traffic, not to mention, ruining our roads!

Thanks for listening,

Dennis & Debby Phistry  
Berkshire Hareathaway HomeServices California Properties  
[debra.phistry@bhhscaproperties.com](mailto:debra.phistry@bhhscaproperties.com)  
(951)244-6988

## Fernando Herrera

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**From:** Jess Cuellar <jess9669@gmail.com>  
**Sent:** Sunday, May 28, 2023 2:26 PM  
**To:** Fernando Herrera  
**Subject:** Warrehouse

**Categories:** Public Comment

You don't often get email from jess9669@gmail.com. [Learn why this is important](#)

**[CAUTION]:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

I am in total agreement this should not be allowed. Please feel free to contact me regarding opposition to this project.  
Regards.

Jess Cuellar

Sent from [Mail](#) for Windows

## Fernando Herrera

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**From:** Lauren Enriquez <starmuse101@gmail.com>  
**Sent:** Friday, May 12, 2023 7:17 PM  
**To:** Fernando Herrera  
**Subject:** Sherman Road Project

**Categories:** Public Comment

You don't often get email from starmuse101@gmail.com. [Learn why this is important](#)

**[CAUTION]:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Herrera,

As a resident of Homeland, CA and a citizen who regularly feels like they have fallen through the cracks of care by both the city of Menifee and the County of Riverside, I think adding more warehouse style buildings to our community is a huge mistake.

Mapes Road has long been majorly in disrepair to the point that I avoid it whenever I can to avoid extra wear and tear on my car. If the city and county cannot care for a single road, what business do they have adding more traffic and chaos to our area? The area could benefit from more things to draw tourism, as we have the Big League Dreams park and the Drop Zone water park.

Please consider seeing to the road and suggesting tourism instead of yet another warehouse.

Best Wishes,

Lauren Enriquez

## Fernando Herrera

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**From:** leolinares2001@gmail.com  
**Sent:** Sunday, May 21, 2023 10:01 AM  
**To:** Fernando Herrera  
**Subject:** PLN 22

**Categories:** Public Comment

[You don't often get email from leolinares2001@gmail.com. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification> ]

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Se don't need no warehouse .. stop the plans



New. Better. Best.

# PUBLIC HEARING NOTICE

## INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

**PROJECT:** Plot Plan No. PLN22-015 Mapes and Sherman Commerce Center

**PROPOSAL:** Plot Plan No. PLN22-015 proposes to construct an approximately 277,578 square foot (sq. ft.) concrete tilt-up building, which includes 10,000 sq. ft. of office space on a vacant 13.34 gross acre project site. The proposed building would have a maximum overall height of approximately 51 feet and include 36 dock-high doors. The project also includes 308 proposed parking spaces, on-site landscape, and full on-site and off-site improvements.

**DATE/TIME:** JUNE 14, 2023 AT 6:00 P.M. OR AS SOON AS POSSIBLE

**LOCATION:** MENIFEE CITY COUNCIL CHAMBERS, 29844 HAUN ROAD, MENIFEE, CA 92586

**CONTACT:** FERNANDO HERRERA, AT (951) 723-3718 OR  
E-MAIL FHERRERA@CITYOFMENIFEE.US, OR GO TO THE CITY OF MENIFEE'S  
AGENDA WEB PAGE AT [HTTP://WWW.CITYOFMENIFEE.US](http://www.cityofmeniffee.us).

**PUBLIC REVIEW PERIOD:** MAY 15, 2023 - JUNE 5, 2023

THE IS/MND IS BEING CIRCULATED FOR A REVIEW PERIOD PURSUANT TO STATE LAW. ALL COMMENTS ON THE IS/MND MUST BE SUBMITTED IN WRITING TO THE ADDRESS OR E-MAIL PROVIDED BELOW AND RECEIVED NO LATER THAN 5:00 PM MONDAY, JUNE 5, 2023. THE IS/MND CAN BE FOUND AT THE FOLLOWING WEB ADDRESS: [HTTP://WWW.CITYOFMENIFEE.US/325/ENVIRONMENTAL-NOTICES-DOCUMENTS](http://www.cityofmeniffee.us/325/ENVIRONMENTAL-NOTICES-DOCUMENTS)

ANY PERSON WISHING TO COMMENT ON THE PROPOSED PROJECT MAY DO SO IN WRITING BETWEEN THE DATE OF THIS NOTICE AND THE PUBLIC HEARING. OR, MAY APPEAR AND BE HEARD AT THE TIME AND PLACE NOTED ABOVE. ALL COMMENTS MUST BE RECEIVED PRIOR TO THE TIME OF PUBLIC HEARING. ALL SUCH COMMENTS WILL BE SUBMITTED TO THE LEGISLATIVE BODY, AND THE LEGISLATIVE BODY WILL CONSIDER SUCH COMMENTS, IN ADDITION TO ANY ORAL TESTIMONY, BEFORE MAKING A DECISION ON THE PROPOSED PROJECT.

Sent from my iPhone

## Fernando Herrera

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**From:** leona31760@gmail.com  
**Sent:** Thursday, May 25, 2023 7:51 AM  
**To:** Fernando Herrera  
**Subject:** Opposed to Plot Plan No. PLN22-015

**Categories:** Public Comment

[You don't often get email from leona31760@gmail.com. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification> ]

[CAUTION]: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

We are Opposed to Plot Plan No. PLN22-015.

My family and I moved here at the end of 2020. We were not looking to live in a industrial zone near a warehouse. Please do not build a warehouse on this property. We would like to see homes there. I am told that the warehouse will bring pollution, big trucks, and a lot of traffic to our nice quiet area.

Thank you  
Leona Smith  
Sent from my iPhone

## Fernando Herrera

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**From:** Linda Jones <linda\_s\_jones@icloud.com>  
**Sent:** Saturday, May 20, 2023 2:43 PM  
**To:** Fernando Herrera  
**Subject:** Mapes rd and Sherman

**Categories:** Public Comment

[You don't often get email from linda\_s\_jones@icloud.com. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification> ]

[CAUTION]: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

This is horrible that we would allow the same warehouse environment as they have done in perris and Moreno Valley. We have families living on Sherman and the cross streets. Please don't promote this warehouse development.

Sincerely,

Linda Jones Sayre

Sent from my iPhone

## Fernando Herrera

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**From:** Mauricio Alvarez <malvarez@riversidetransit.com>  
**Sent:** Tuesday, May 30, 2023 10:04 AM  
**To:** Fernando Herrera  
**Subject:** Plot Plan PLN22-015 Mapes and Sherman

**Categories:** Public Comment, CEQA Comment

**[CAUTION]:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good Morning Fernando,

Thank you for including Riverside Transit Agency in the development review of Plot Plan PLN22-015, a proposed warehouse on Mapes & Sherman. After reviewing the plans for this project, there are no comments to submit at this time.

Thank you,

**Mauricio Alvarez, MBA**

Planning Analyst  
Riverside Transit Agency  
p: 951.565.5260 | e: [malvarez@riversidetransit.com](mailto:malvarez@riversidetransit.com)  
[Website](#) | [Facebook](#) | [Twitter](#) | [Instagram](#)  
1825 Third Street, Riverside, CA 92507

## Fernando Herrera

---

**From:** Renee Glosecki <rglosecki@gmail.com>  
**Sent:** Sunday, May 21, 2023 12:37 PM  
**To:** Fernando Herrera  
**Subject:** MND for Warehouse on Sherman and Mapes

**Categories:** Public Comment

You don't often get email from rglosecki@gmail.com. [Learn why this is important](#)

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Good morning

I would like to obtain more information regarding the amount of large trucks that would be using the already traffic clogged Ethanac Rd. Considering Menifee doesn't care to maintain their half of the road, I would like to know what the route for trucks leaving from and heading to this facility is. The roads surrounding do not support the amount of workers and commercial trucks needed to sustain this size of facility.

Thank you  
Renee Glosecki

## Fernando Herrera

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**From:** Robert Balslev <rbalslev42@gmail.com>  
**Sent:** Saturday, May 20, 2023 10:43 PM  
**To:** Fernando Herrera  
**Subject:** Where House Development

**Categories:** Public Comment

[You don't often get email from rbalslev42@gmail.com. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification> ]

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For What Is Worth

The city on MENIFEE does not need Where House Development.  
Our traffic congestion is bad enough. Not enough freeway interchanges to accommodate commercial traffic, let alone personal private vehicles.  
IMO, this community is 20 years behind in infrastructure development planning.  
Do not make it worse as enhanced development increases to the west.  
Slow the development down and plan.

A MENIFEE resident.  
Bob Balslev.

Sent from my iPhone

## Fernando Herrera

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**From:** Sahar Ghadimi <sghadimi@aqmd.gov>  
**Sent:** Wednesday, May 24, 2023 5:40 PM  
**To:** Fernando Herrera  
**Cc:** Sam Wang  
**Subject:** Technical Data Request: Plot Plan No. PLN22-015 Mapes and Sherman Commerce Center

**Categories:** Public Comment

You don't often get email from sghadimi@aqmd.gov. [Learn why this is important](#)

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Dear Fernando Herrera,

South Coast AQMD staff received the Notice of Intent to Adopt a Mitigated Negative Declaration for Plot Plan No. **PLN22-015** Mapes and Sherman Commerce Center (South Coast AQMD Control Number: RVC230524-03). Staff is currently in the process of reviewing the MND. The public commenting period is from **05/15/23 – 06/05/23**.

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 by the end of next week (**05/24/23**). 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](mailto:sghadimi@aqmd.gov)

**BLUM, COLLINS & HO LLP**

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

June XX, 2023

Fernando Herrera, Associate Planner  
City of Menifee  
29844 Haun Road  
Menifee, CA 92586

*VIA EMAIL TO:*  
fherrera@cityofmenifee.us

*Subject: Comments on Mapes and Sherman Commerce Center MND (SCH No. 2023050369)*

Dear Mr. Herrera,

Thank you for the opportunity to comment on the Mitigated Negative Declaration (MND) for the proposed Mapes and Sherman Commerce Center. 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 construction and operation of a 277,578 square feet (sf) industrial warehouse building consisting of 267,578 sf of warehousing space and 10,000 sf of office space on an approximately 13.34 gross acre site. The building proposes 36 truck/trailer loading dock doors, 308 passenger car parking spaces, and 69 truck/trailer parking spaces. The building is proposed to operate as a fulfillment center facility.

**1.1 Project Description**

The MND does not include a floor plan, detailed site plan, building elevations, 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 building elevations. Additionally, the site plan provided in Figure 3-1 has been edited to remove pertinent information from public view. For example, it does not provide any detailed information such as earthwork quantity notes or floor area ratio. Providing the grading plan and earthwork quantity notes is vital as the MND states does not provide any information on the quantity of soil/material import and export necessary to construct the project. Including a grading plan is vital as it is necessary to calculate



May 18, 2023

City of Menifee Community Development  
Attention: Fernando Herrera, Associate Planner  
29844 Haun Road  
Menifee, CA 92586

**Subject: EMWD Comments for the Mapes and Sherman Commerce Center Project Notice of Intent to Adopt a Mitigated Negative Declaration**

**Location:** Southwest corner of Mapes Road and Sherman Road in the City of Menifee, Riverside County, California.

Dear Mr. Fernando Herrera:

Eastern Municipal Water District (EMWD) thanks you for the opportunity to comment on the Notice of Intention to Adopt a Mitigated Negative Declaration for the Mapes and Sherman Commerce Center Project (project). The project proposes the construction of an approximately 277,578 square foot concrete tilt-up building, which includes 10,000 square feet of office space on a vacant 13.34 gross acre project site. The proposed building would have a maximum overall height of approximately 51 feet and include 36 dock doors. The project would also include 308 vehicle parking spaces, on-site landscape and full on-site and off-site improvements.

EMWD offers the following comments:

To define the impact(s) on the environment and on existing EMWD facilities, and as development within this area occurs over time, the proponents of implementing development projects shall consult EMWD's Development Services Department to compare proposed and existing water demands and sewer flows, and prepare a Design Conditions report (DC), formally known as the Plan of Service (POS), to detail all pertinent facilities necessary to serve such implementing development projects, resulting in an approved DC, prior to final design and plan check of such facilities.

Board of Directors

Philip E. Paule, *President* | Stephen J. Corona, *Vice President* | Jeff Armstrong | Randy A. Record | David J. Slawson

2270 Trumble Road • P.O. Box 8300 • Perris, CA 92572-8300

T 951.928.3777 • F 951.928.6177 | [www.emwd.org](http://www.emwd.org)

To help define EMWD's Design Conditions, EMWD requires beginning dialogue with project proponents at an early stage in the site design and development, via a one-hour complementary Due Diligence meeting. To set up this meeting the project proponent should complete a Project Questionnaire (form NBD-058) and submit to EMWD. To download this form or for additional information, please visit our web page [www.emwd.org](http://www.emwd.org), then select the "Developer" link, then select the "New Development Process Forms" link. This meeting will offer the following benefits:

1. Describe EMWD's development process.
2. Identify project scope and parameters.
3. Provide a preliminary review of the project within the context of existing infrastructure.
4. Discuss potential candidacy for recycled water service.
5. Identify project submittal requirements to start the Design Conditions review.

Following the Due Diligence meeting, and to proceed with a project, the Design Conditions will need to be developed by the developer's engineer and reviewed/approved by EMWD prior to submitting improvement plans for Plan Check. The DC process and approval will provide the following:

1. Technical evaluation of the project's demands and existing system capacities.
2. Identification of impacts to existing facilities.
3. Identification of additional on-site and off-site facilities, necessary to serve the project.
4. Identification of easement requirements, if necessary.
5. Identification of potential EMWD's cost participation in facility oversizing, if applicable.

If you have questions or concerns, please do not hesitate to contact Maroun El-Hage at (951) 928-3777, extension 4468 or by e-mail at [El-hagem@emwd.org](mailto:El-hagem@emwd.org).

Sincerely,

Alfred Javier  
Director of Environmental and Regulatory Compliance

ARJ: hs



RIVERSIDE COUNTY FLOOD CONTROL  
AND WATER CONSERVATION DISTRICT

242331

February 16, 2022

City of Menifee  
Planning Division  
29714 Haun Road, Building A  
Menifee, CA 92586

Attention: Fernando Herrera

Re: DEV No. 2022-003, PLN22-015  
APNs 329-030-003, -048, and -049

The Riverside County Flood Control and Water Conservation District (District) does not normally recommend conditions for land divisions or other land use cases in incorporated cities. The District also does not plan check City land use cases, or provide State Division of Real Estate letters or other flood hazard reports for such cases. District comments/recommendations for such cases are normally limited to items of specific interest to the District including District Master Drainage Plan facilities, other regional flood control and drainage facilities which could be considered a logical component or extension of a master plan system, and District Area Drainage Plan fees (development mitigation fees). In addition, information of a general nature is provided.

The District's review is based on the above-referenced project transmittal, received February 10, 2022. The District **has not** reviewed the proposed project in detail, and the following comments do not in any way constitute or imply District approval or endorsement of the proposed project with respect to flood hazard, public health and safety, or any other such issue:

- ☐ This project would not be impacted by District Master Drainage Plan facilities, nor are other facilities of regional interest proposed.
- ☒ This project involves District proposed Master Drainage Plan facilities, namely, Romoland Line B. The District will accept ownership of such facilities on written request of the City. Facilities must be constructed to District standards, and District plan check and inspection will be required for District acceptance. Plan check, inspection, and administrative fees will be required.
- ☐ This project proposes channels, storm drains 36 inches or larger in diameter, or other facilities that could be considered regional in nature and/or a logical extension of the adopted Romoland Master Drainage Plan. The District would consider accepting ownership of such facilities on written request of the City. Facilities must be constructed to District standards, and District plan check and inspection will be required for District acceptance. Plan check, inspection, and administrative fees will be required.
- ☒ This project is located within the limits of the District's Homeland/Romoland - Line B Area Drainage Plan for which drainage fees have been adopted; applicable fees should be paid by cashier's

City of Menifee

Re: DEV No. 2022-003, PLN22-015  
APNs 329-030-003, -048, and -049

242331

check or money order only to the Flood Control District or City prior to issuance of grading permits. Fees to be paid should be at the rate in effect at the time of issuance of the actual permit.

- ☐ An encroachment permit for Site 1 shall be obtained for any construction related activities occurring within District right of way or facilities, namely, \_\_\_\_\_. For further information, contact the District's Encroachment Permit Section at 951.955.1266.
- ☐ The District's previous comments are still valid.

**GENERAL INFORMATION**

This project may require a National Pollutant Discharge Elimination System (NPDES) permit from the State Water Resources Control Board. Clearance for grading, recordation, or other final approval should not be given until the City has determined that the project has been granted a permit or is shown to be exempt.

If this project involves a Federal Emergency Management Agency (FEMA) mapped floodplain, then the City should require the applicant to provide all studies, calculations, plans, and other information required to meet FEMA requirements, and should further require that the applicant obtain a Conditional Letter of Map Revision (CLOMR) prior to grading, recordation, or other final approval of the project and a Letter of Map Revision (LOMR) prior to occupancy.

If a natural watercourse or mapped floodplain is impacted by this project, the City should require the applicant to obtain a Section 1602 Agreement from the California Department of Fish and Wildlife and a Clean Water Act Section 404 Permit from the U.S. Army Corps of Engineers, or written correspondence from these agencies indicating the project is exempt from these requirements. A Clean Water Act Section 401 Water Quality Certification may be required from the local California Regional Water Quality Control Board prior to issuance of the Corps 404 permit.

Very truly yours,



DEBORAH DE CHAMBEAU  
Engineering Project Manager

c: Riverside County Planning Department  
Attn: Phayvanh Nanthavongdouangsy

AMR:blm



RIVERSIDE COUNTY FLOOD CONTROL  
AND WATER CONSERVATION DISTRICT

251259

May 30, 2023

City of Menifee  
Planning Division  
29714 Haun Road, Building A  
Menifee, CA 92586

Attention: Mr. Fernando Herrera

Re: PLN 22-015, Mapes & Sherman Commerce  
Center, APNs 329-030-003, 329-030-048, and  
329-030-049

The Riverside County Flood Control and Water Conservation District (District) does not normally recommend conditions for land divisions or other land use cases in incorporated cities. The District also does not plan check City land use cases or provide State Division of Real Estate letters or other flood hazard reports for such cases. District comments/recommendations for such cases are normally limited to items of specific interest to the District including District Master Drainage Plan facilities, other regional flood control and drainage facilities which could be considered a logical component or extension of a master plan system, and District Area Drainage Plan fees (development mitigation fees). In addition, information of a general nature is provided.

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- ☒ The District's previous comments for case DEV 2022-003, PLN22-015 dated February 16, 2022 are still valid.

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The project proponent shall bear the responsibility for complying with all applicable mitigation measures defined in the California Environmental Quality Act (CEQA) document (i.e., Negative Declaration, Mitigated Negative Declaration, Environmental Impact Report) and/or Mitigation Monitoring and Reporting Program, if a CEQA document was prepared for the project. The project proponent shall also bear the responsibility for complying with all other federal, state, and local environmental rules and regulations that may apply.

If a natural watercourse or mapped floodplain is impacted by this project, the City should require the applicant to obtain a Section 1602 Agreement from the California Department of Fish and Wildlife and a Clean Water Act Section 404 Permit from the U.S. Army Corps of Engineers, or written correspondence from these agencies indicating the project is exempt from these requirements. A Clean Water Act Section 401 Water Quality Certification may be required from the local California Regional Water Quality Control Board prior to issuance of the Corps 404 permit.

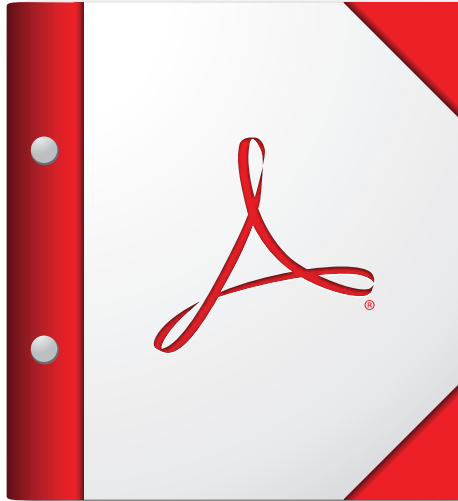
Very truly yours,



AMY MCNEILL  
Engineering Project Manager

Attachments

ec: Riverside County Planning Department  
Attn: Timothy Wheeler  
EM:mm



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May 18, 2023

City of Menifee Community Development  
Attention: Fernando Herrera, Associate Planner  
29844 Haun Road  
Menifee, CA 92586

**Subject: EMWD Comments for the Mapes and Sherman Commerce Center Project Notice of Intent to Adopt a Mitigated Negative Declaration**

**Location:** Southwest corner of Mapes Road and Sherman Road in the City of Menifee, Riverside County, California.

Dear Mr. Fernando Herrera:

Eastern Municipal Water District (EMWD) thanks you for the opportunity to comment on the Notice of Intention to Adopt a Mitigated Negative Declaration for the Mapes and Sherman Commerce Center Project (project). The project proposes the construction of an approximately 277,578 square foot concrete tilt-up building, which includes 10,000 square feet of office space on a vacant 13.34 gross acre project site. The proposed building would have a maximum overall height of approximately 51 feet and include 36 dock doors. The project would also include 308 vehicle parking spaces, on-site landscape and full on-site and off-site improvements.

EMWD offers the following comments:

To define the impact(s) on the environment and on existing EMWD facilities, and as development within this area occurs over time, the proponents of implementing development projects shall consult EMWD's Development Services Department to compare proposed and existing water demands and sewer flows, and prepare a Design Conditions report (DC), formally known as the Plan of Service (POS), to detail all pertinent facilities necessary to serve such implementing development projects, resulting in an approved DC, prior to final design and plan check of such facilities.

Board of Directors

Philip E. Paule, *President* | Stephen J. Corona, *Vice President* | Jeff Armstrong | Randy A. Record | David J. Slawson

2270 Trumble Road • P.O. Box 8300 • Perris, CA 92572-8300

T 951.928.3777 • F 951.928.6177 | [www.emwd.org](http://www.emwd.org)

To help define EMWD's Design Conditions, EMWD requires beginning dialogue with project proponents at an early stage in the site design and development, via a one-hour complementary Due Diligence meeting. To set up this meeting the project proponent should complete a Project Questionnaire (form NBD-058) and submit to EMWD. To download this form or for additional information, please visit our web page [www.emwd.org](http://www.emwd.org), then select the "Developer" link, then select the "New Development Process Forms" link. This meeting will offer the following benefits:

1. Describe EMWD's development process.
2. Identify project scope and parameters.
3. Provide a preliminary review of the project within the context of existing infrastructure.
4. Discuss potential candidacy for recycled water service.
5. Identify project submittal requirements to start the Design Conditions review.

Following the Due Diligence meeting, and to proceed with a project, the Design Conditions will need to be developed by the developer's engineer and reviewed/approved by EMWD prior to submitting improvement plans for Plan Check. The DC process and approval will provide the following:

1. Technical evaluation of the project's demands and existing system capacities.
2. Identification of impacts to existing facilities.
3. Identification of additional on-site and off-site facilities, necessary to serve the project.
4. Identification of easement requirements, if necessary.
5. Identification of potential EMWD's cost participation in facility oversizing, if applicable.

If you have questions or concerns, please do not hesitate to contact Maroun El-Hage at (951) 928-3777, extension 4468 or by e-mail at [El-hagem@emwd.org](mailto:El-hagem@emwd.org).

Sincerely,

Alfred Javier  
Director of Environmental and Regulatory Compliance

ARJ: hs



RIVERSIDE COUNTY FLOOD CONTROL  
AND WATER CONSERVATION DISTRICT

242331

February 16, 2022

City of Menifee  
Planning Division  
29714 Haun Road, Building A  
Menifee, CA 92586

Attention: Fernando Herrera

Re: DEV No. 2022-003, PLN22-015  
APNs 329-030-003, -048, and -049

The Riverside County Flood Control and Water Conservation District (District) does not normally recommend conditions for land divisions or other land use cases in incorporated cities. The District also does not plan check City land use cases, or provide State Division of Real Estate letters or other flood hazard reports for such cases. District comments/recommendations for such cases are normally limited to items of specific interest to the District including District Master Drainage Plan facilities, other regional flood control and drainage facilities which could be considered a logical component or extension of a master plan system, and District Area Drainage Plan fees (development mitigation fees). In addition, information of a general nature is provided.

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City of Menifee

Re: DEV No. 2022-003, PLN22-015  
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242331

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- ☐ An encroachment permit for Site 1 shall be obtained for any construction related activities occurring within District right of way or facilities, namely, \_\_\_\_\_. For further information, contact the District's Encroachment Permit Section at 951.955.1266.
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Very truly yours,



DEBORAH DE CHAMBEAU  
Engineering Project Manager

c: Riverside County Planning Department  
Attn: Phayvanh Nanthavongdouangsy

AMR:blm



RIVERSIDE COUNTY FLOOD CONTROL  
AND WATER CONSERVATION DISTRICT

251259

May 30, 2023

City of Menifee  
Planning Division  
29714 Haun Road, Building A  
Menifee, CA 92586

Attention: Mr. Fernando Herrera

Re: PLN 22-015, Mapes & Sherman Commerce  
Center, APNs 329-030-003, 329-030-048, and  
329-030-049

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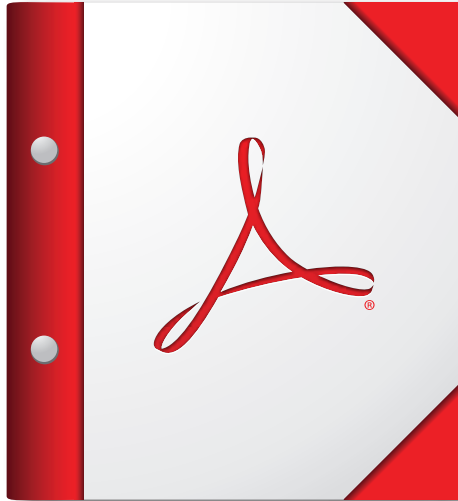
Very truly yours,



AMY MCNEILL  
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Attachments

ec: Riverside County Planning Department  
Attn: Timothy Wheeler  
EM:mm



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the truck hauling trips due to soil import/export during the grading phase of construction. Additionally, there are no building elevations provided to verify Aesthetics impacts, compliance with General Plan design policies, and the overall building height. An EIR must be prepared to include wholly accurate and adequate detailed project site plan, floor plan, grading plan, elevations, and project narrative for public review.

## **Evaluation of Environmental Impacts**

### **III. Air Quality, VI. Energy, and VIII. Greenhouse Gas Emissions**

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

The MND does not include for analysis relevant environmental justice issues in reviewing potential impacts, including cumulative impacts from the proposed project. According to CalEnviroScreen 3.0, CalEPA's screening tool that ranks each census tract in the state for pollution and socioeconomic vulnerability, the proposed project's census tract (6065042730) is highly burdened by pollution. The surrounding community, including sensitive receptors such as Big League Dreams baseball stadium to the north and residences to the east, bears the impact of multiple sources of pollution and is more polluted than average on every pollution indicator measured by CalEnviroScreen. For example, the project census tract ranks in the 95th percentile for ozone burden, the 51st percentile for particulate matter (PM) 2.5 burden, 43rd percentile for diesel PM burden, and 82nd percentile for traffic burden. All of these environmental factors are typically attributed to heavy truck activity in the area. Ozone can cause lung irritation, inflammation, and worsening of existing chronic health conditions, even at low levels of exposure<sup>1</sup>. 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<sup>2</sup>.

Further, the project's census tract is a diverse community including 76% Hispanic residents, whom are especially vulnerable to the impacts of pollution. The community has a high rate of low educational attainment, meaning 86% of the census tract over age 25 has not attained a high school diploma, which is an indication that they may lack health insurance or access to medical care. The community also has a high rate of poverty, meaning 88% 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

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<sup>1</sup> OEHHA Ozone <https://oehha.ca.gov/calenviroscreen/indicator/air-quality-ozone>

<sup>2</sup> OEHHA Diesel Particulate Matter <https://oehha.ca.gov/calenviroscreen/indicator/diesel-particulate-matter>

care<sup>3</sup>. Poor communities are often located in areas with high levels of pollution<sup>4</sup>. Poverty can cause stress that weakens the immune system and causes people to become ill from pollution<sup>5</sup>. 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 73rd percentile for incidence of cardiovascular disease. The community also has a high rate of linguistic isolation, meaning 44% of the census tract speaks little to no English and faces further inequities as a result.

California's Building Energy Code Compliance Software (CBECC) is the State's only approved energy compliance modeling software for non-residential buildings in compliance with Title 24<sup>6</sup>. CalEEMod is not listed as an approved software. The CalEEMod-based modeling in the MND and appendices does not comply with the 2022 Building Energy Efficiency Standards and under-reports the project's significant Energy impacts and fuel consumption to the public and decision makers. Since the MND did not accurately or adequately model the energy impacts in compliance with Title 24, a finding of significance must be made. An EIR with modeling using the approved software (CBECC) must be circulated for public review in order to adequately analyze the project's significant environmental impacts. This is vital as the MND utilizes CalEEMod as a source in its methodology and analysis, which is clearly not the approved software.

#### **IV. Biological Resources**

Appendix B: Habitat Assessment and MSHCP Consistency Analysis does not comply with the Western Riverside MSHCP<sup>7</sup>. The Western Riverside MSHCP requires "A written report including photographs of the project site, location of burrowing owl habitat surveyed, location of transects, and burrow survey methods should be prepared." Table C-1: Potentially Occurring Special-Status Biological Resources within Appendix C states that "suitable burrows (>4 inches in diameter) are present in the southern portion of the site," to accommodate the burrowing owl. The MND and appendices do not provide any photos of the suitable burrows. There are no maps depicting the location of burrowing owl habitat surveyed. There are no maps depicting the location of transects walked during the site survey.

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<sup>3</sup> OEHHA Poverty <https://oehha.ca.gov/calenviroscreen/indicator/poverty>

<sup>4</sup> Ibid.

<sup>5</sup> Ibid.

<sup>6</sup> 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>

<sup>7</sup> Western Riverside MSHCP Instructions for Burrowing Owl [https://www.wrc-rca.org/species/survey\\_protocols/burrowing\\_owl\\_survey\\_instructions.pdf](https://www.wrc-rca.org/species/survey_protocols/burrowing_owl_survey_instructions.pdf)

Additionally, the Western Riverside MSHCP requires “the location of all suitable burrowing owl habitat, potential owl burrows, burrowing owl sign, and any owls observed should be recorded and mapped, including GPS coordinates.” The MND and Appendix B do not include any of this information.

The Western Riverside MSHCP also requires “if habitat is found on the site, then walk a 150-meter (approximately 500 feet) buffer zone around the project boundary.” Appendix B does not state that a 500 foot buffer zone survey around the project boundary was completed in accordance with this requirement. Suitable burrows and habitat for burrowing owl was observed on the site and therefore a walking survey of the 500 foot buffer zone must be conducted and included as part of an EIR.

## **XI. Land Use and Planning**

The MND does not meaningfully discuss or analyze the project’s compliance with the General Plan’s Land Use Buildout Scenario. Exhibit LU-4 Land Use Buildout Summary within the General Plan Land Use Element<sup>8</sup> projected a 0.40 FAR within EDC-NG and 25,020,987 square feet of non-retail development within all EDC areas. The MND does not provide any information or analysis on the buildout conditions of the General Plan. The MND does not state the floor area ratio of the proposed project. The MND has not provided evidence that the growth generated by the proposed project was anticipated by the General Plan, RTP/SCS, or AQMP. An EIR must be prepared to include this analysis.

Additionally, the MND has not provided a consistency analysis with any General Plan policies. An EIR must be prepared to include an analysis with all General Plan goals and policies, including but not limited to the following:

1. Goal OSC-9: Reduced impacts to air quality at the local level by minimizing pollution and particulate matter
2. Policy OCS-9.1: Meet state and federal clean air standards by minimizing particulate matter emissions from construction activities.
3. Policy OCS-9.2: Buffer sensitive land uses, such as residences, schools, care facilities, and recreation areas from major air pollutant emission sources, including freeways, manufacturing, hazardous materials storage, wastewater treatment, and similar uses.
4. Policy OCS-9.3: Comply with regional, state, and federal standards and programs for control of all airborne pollutants and noxious odors, regardless of source.

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<sup>8</sup> Menifee General Plan Land Use Element  
[https://www.cityofmenifee.us/DocumentCenter/View/14701/FINAL\\_Land-Use-Element\\_11322](https://www.cityofmenifee.us/DocumentCenter/View/14701/FINAL_Land-Use-Element_11322)

5. Policy OCS-9.5: Comply with the mandatory requirements of Title 24 Part 1 of the California Building Standards Code (CALGreen) and Title 24 Part 6 Building and Energy Efficiency Standards.
6. EJ-3.6: Continue to collaborate with the South Coast Air Quality Management District (SCAQMD), California Air Resources Board (CARB), utility providers, Southern California Association of Governments (SCAG), Western Riverside Council of Governments (WRCOG) and nonprofit organizations, neighborhoods groups, and other community organizations to improve air quality, food availability, renewable energy systems, sustainable land use and reduce greenhouse gas emissions (GHGs).
7. OSC-10: An environmentally aware community that is responsive to changing climate conditions and actively seeks to reduce local greenhouse gas emissions.
8. OCS-10.1: Align the city's local GHG reduction targets to be consistent with the statewide GHG reduction target of AB 32.
9. OCS-10.2: Align the city's long-term GHG reduction goal consistent with the statewide GHG reduction goal of Executive Order S-03-05.
10. OCS-10.3: Participate in regional greenhouse gas emission reduction initiatives.
11. OCS-10.4: Consider impacts to climate change as a factor in evaluation of policies, strategies, and projects.

Additionally, the MND has not provided a consistency analysis with SCAG's 2020-2045 Connect SoCal RTP/SCS. Due to the errors in modeling and modeling without supporting evidence (as noted throughout this comment letter and attachments) the proposed project has significant potential for inconsistency 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. An EIR must be prepared with revised modeling and a consistency analysis in order to provide an adequate and accurate informational document.

#### **XIV. Population and Housing**

The MND utilizes uncertain language and does not provide any meaningful analysis or supporting evidence to substantiate the conclusion that there will be no significant impact to population and housing. The MND states that "the *majority* of new employees would be *expected* to be existing residents," and relies upon the City's entire unemployed population of 1,700 people to fill the project's operational jobs. However, the MND does not provide evidence that the City's existing unemployed workforce is qualified for or interested in industrial work to substantiate this claim. The MND also does not provide any information or analysis of the construction employees necessary to accommodate the project. An EIR must be prepared with the above information and analysis in order to provide an adequate and accurate informational document.

SCAG's Connect SoCal Demographics and Growth Forecast<sup>9</sup> notes that the City will add 15,400 jobs between 2016 - 2045. Utilizing the EIR's calculation of 603 employees, the project represents 3.9% of the City's employment growth from 2016 - 2045. A single project accounting for this amount of the projected employment growth over 29 years represents a significant amount of growth. An EIR must be prepared to include this analysis, and also provide a cumulative analysis discussion of projects approved since 2016 and projects "in the pipeline" to determine if the project will exceed SCAG's employment growth forecast for the City. For example, other recent industrial projects<sup>10</sup> such as Ethanac and Barnett Warehouse (440 employees), Menifee Commerce Center (2,885 employees), Menifee Commerce Center Phase II (1,962 employees), Northern Gateway Commerce Center (2,267 employees), Ares Warehouse on Murrieta (952 employees), Capstone Industrial (1,205 employees), Wheat Warehouse (151 employees), Corsica Business Park (477 employees), Trumble and Watson Warehouse (571 employees), McLaughlin San Jacinto Warehouses (846 employees), United Carports Warehouse (105 employees), and Motte Business Center (1,964 employees) combined with the proposed project will cumulatively generate 14,673 employees, which is 95.2% of the City's employment growth forecast over 29 years accounted for by only 14 industrial projects submitted since 2020. This number increases exponentially when the City's commercial development activity and other projects since 2016 are added to the calculation. An EIR must be prepared to include a cumulative analysis on this topic in order to provide an adequate and accurate environmental analysis.

The MND does not provide any information or analysis to support the conclusion that the project will not necessitate the construction of housing affordable to the project-related employee's households. The MND does not provide any discussion of employees that need to relocate to the City for work or the availability of housing affordable to those households within the City. An EIR must be prepared with information on the type of available units and if they are affordable to the project's workforce. An EIR must be prepared with this information in order to substantiate the MND's claims that project impacts will be less than significant.

The MND does not provide any information on the wages generated by the construction or operational jobs in the proposed project. MIT's Living Wage Research Center reports that the

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<sup>9</sup> SCAG Connect SoCal Demographics and Growth Forecast adopted September 3, 2020  
[https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial\\_demographics-and-growth-forecast.pdf?1606001579](https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial_demographics-and-growth-forecast.pdf?1606001579)

<sup>10</sup> Data for all listed projects via City of Menifee Land Development Projects Map  
<https://cityofmenifee.maps.arcgis.com/apps/instant/minimalist/index.html?appid=55fc56d4eee94e588a28a958cebac908> and Accela Menifee <https://aca-prod.accela.com/MENIFEE/Cap/CapHome.aspx?module=Planning&TabName=Planning&TabList=Home%7C0%7CPermits%7C1%7CEngineering%7C2%7CPlanning%7C3%7CFire%7C4%7CCurrentTabIndex%7C3>

living wage for two adults with two children is \$27.25 per hour in Riverside County<sup>11</sup>. This is an annual salary of approximately \$56,680 while MIT reports based on BLS statistics that the average annual salary in Riverside County for the transportation and material moving sector is \$41,687. HCD's area median income (AMI) for a family of four people in Riverside County is \$87,400<sup>12</sup>. 80% of the Riverside County AMI is \$69,920 and the MND has not demonstrated that the project's construction or operational employees will earn an annual salary of at least \$69,920. The MND has not provided evidence that the project will pay wages above 80% of the Riverside County AMI and thus not generate a need for affordable housing. An EIR must be prepared which includes this information for analysis in order to provide an adequate and accurate environmental analysis.

## **XVII. Transportaiton**

The project's VMT impacts are misrepresented and unreported by the VMT modeling. The MND relies upon a VMT screening analysis that concludes the proposed project site is located in a low VMT-generating Traffic Analysis Zone (TAZ), which results in less than significant Transportation impacts. The VMT Appendix states the project is located in TAZ ID 1098 which is bound by Mapes Rd. to the north, Trumble Rd./I-215 to the west, Illinois Ave. to the south, and Sherman Rd. to the east. The TAZ is mostly comprised of vacant land with a few underdeveloped properties/storage. The proposed project is unique in that the TAZ in which the Project site is located does not contain any other operational warehouse buildings and is over 50% vacant land. The VMT screening analysis does not adequately or accurately represent the VMT impacts of the proposed project and an EIR must be prepared with a project-specific VMT analysis. This is especially vital as the project description states the project is a fulfillment center, which involves extremely high VMT rates during the course of daily business 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 fulfillment center, 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. An EIR must be prepared to reflect a quantified VMT analysis that includes all truck/trailer and delivery van activity.

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<sup>11</sup> MIT Living Wage Research Center <https://livingwage.mit.edu/counties/06065>

<sup>12</sup> HCD 2022 Income Limits <https://www.hcd.ca.gov/docs/grants-and-funding/inc2k22.pdf>

The MND 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. Appendix H: Traffic Assessment includes Exhibit 1-5: Truck Access with separate exhibits for Driveway 1 and Driveway 4. The turning template at Driveway 4 shows that the truck entering the site via Sherman overlaps with a landscape planter and therefore there is not adequate space to accommodate heavy truck maneuvering.

There are no exhibits depicting the onsite turning radius available for trucks maneuvering throughout the site. Notably, the truck/trailer parking stalls are located on the west side of the project site, adjacent to the truck loading dock area. These parking stalls that may be in use at any time and further restrict truck/trailer movement. An EIR must be prepared to include a finding of significance due to these significant and unavoidable impacts.

There are also no exhibits depicting emergency vehicle access. 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. An EIR must be prepared for the proposed project with this analysis in order to provide an adequate and accurate environmental analysis.

Additionally, the MND has not provided any analysis of the available horizontal and vertical sight distance at the intersection of the project driveways and adjacent streets. Sight distance is the continuous length of street ahead visible to the driver. At unsignalized intersections, corner sight distance must provide a substantially clear line of sight between the driver of the vehicle waiting on the minor road (driveway) and the driver of an approaching vehicle. An EIR must be prepared with this analysis based on the American Association of State Highway and Transportation Officials (AASHTO) Stopping Sight Distance requirements.

## **XXI. Mandatory Findings of Significance**

An EIR must be prepared to include a cumulative analysis discussion here to demonstrate the impact of the proposed project in a cumulative setting. For example, other recent industrial projects such as such as <sup>13</sup> such as Ethanac and Barnett Warehouse (440 employees), Menifee

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<sup>13</sup> Data for all listed projects via City of Menifee Land Development Projects Map <https://cityofmenifee.maps.arcgis.com/apps/instant/minimalist/index.html?appid=55fc56d4eee94e588a28a958cebac908> and Accela Menifee <https://aca-prod.accela.com/MENIFEE/Cap/CapHome.aspx?module=Planning&TabName=Planning&TabList=Home%7C0%7CPermits%7C1%7CEngineering%7C2%7CPlanning%7C3%7CFire%7C4%7CCurrentTabIndex%7C3>

Commerce Center (2,885 employees), Menifee Commerce Center Phase II (1,962 employees), Northern Gateway Commerce Center (2,267 employees), Ares Warehouse on Murrieta (952 employees), Capstone Industrial (1,205 employees), Wheat Warehouse (151 employees), Corsica Business Park (477 employees), Trumble and Watson Warehouse (571 employees), McLaughlin San Jacinto Warehouses (846 employees), United Carports Warehouse (105 employees), and Motte Business Center (1,964 employees) combined with the proposed project will cumulatively generate 14,673 employees, which is 95.2% of the City's employment growth forecast over 29 years accounted for by only 14 industrial projects submitted since 2020.

This number increases exponentially when the City's commercial development activity and other projects since 2016 are added to the calculation. The MND has not provided evidence that the growth generated by the proposed project was anticipated by the General Plan, RTP/SCS, or AQMP. An EIR must be prepared to include a cumulative analysis on this topic in order to provide an adequate and accurate environmental analysis.

The MND also does not meaningfully discuss or analyze the project's compliance with the General Plan's Land Use Buildout Scenario. Exhibit LU-4 Land Use Buildout Summary within the General Plan Land Use Element<sup>14</sup> projected a 0.40 FAR within EDC-NG and 25,020,987 square feet of non-retail development within all EDC areas. The MND does not provide any information or analysis on the buildout conditions of the General Plan. The MND does not state the floor area ratio of the proposed project. The MND has not provided evidence that the growth generated by the proposed project was anticipated by the General Plan, RTP/SCS, or AQMP. An EIR must be prepared to include this analysis.

## **Conclusion**

For the foregoing reasons, GSEJA believes the MND is flawed and an EIR must be prepared for the proposed project and circulated for public review. Golden State Environmental Justice Alliance 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.

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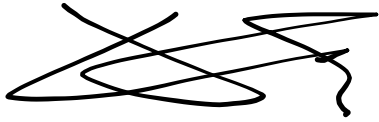
<sup>14</sup> Menifee General Plan Land Use Element  
[https://www.cityofmenifee.us/DocumentCenter/View/14701/FINAL\\_Land-Use-Element\\_11322](https://www.cityofmenifee.us/DocumentCenter/View/14701/FINAL_Land-Use-Element_11322)

Fernando Herrera

May 31, 2023

Page 10

Sincerely,

A handwritten signature in black ink, consisting of several overlapping loops and a final vertical stroke on the right.

Gary Ho

Blum, Collins & Ho LLP

Attachment: SWAPE Analysis



Technical Consultation, Data Analysis and  
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May 31, 2023

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

**Subject: Comments on the Mapes and Sherman Commerce Center Project (SCH No. 2023050369)**

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Dear Mr. Ho,

We have reviewed the May 2023 CEQA Environmental Checklist Form ("Checklist") for the Mapes and Sherman Commerce Center Project ("Project") located in the City of Menifee ("City"). The Project proposes to construct 267,578-square-feet ("SF") of warehouse space, 10,000-SF of office space, 69 trailer parking spaces, and 308 parking spaces on the 13.34-acre site.

Our review concludes that the Checklist fails to adequately evaluate the Project's air quality, health risk, and greenhouse gas impacts. As a result, emissions and health risk impacts associated with construction and operation of the proposed Project are underestimated and inadequately addressed. An 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").<sup>1</sup> 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

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<sup>1</sup> "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 utilized in calculating the Project's air pollutant emissions and make known which default values are changed as well as provide justification for the values selected. Regarding the evaluation of the criteria air pollutant emissions associated with Project construction and operation, the Checklist states:

"Typical emission rates from construction activities were obtained from CalEEMod Version 2022.1" (p. 32).

As stated above, the Checklist relies on CalEEMod Version 2022.1 to estimate the Project's emissions. 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.<sup>2</sup> 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 A, pp. 144):

Screen	Justification
Land Use	Total Project area is +/- 13.3 acres
Construction: Construction Phases	Construction anticipated to begin October 2023 and end August 2024
Construction: Off-Road Equipment	Equipment adjusted based on the changes made to the Construction Schedule
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Site Preparation, Grading, and Building Construction
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

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

“.JSON” output files, which allow third parties to review the model’s revised input parameters.<sup>3</sup> Without access to the complete output files, including the specific numeric changes to the default values, we cannot verify that the Checklist’s air modeling and subsequent analysis is an accurate reflection of the proposed Project. As a result, an 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.<sup>4</sup>

### Unsubstantiated Input Parameters Used to Estimate Project Emissions

As previously discussed, the Checklist 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. 32). Regardless, when reviewing the Project’s CalEEMod output files, provided in the Air Quality, Greenhouse Gas Emissions, and Energy Supporting Information (“AQ & GHG Supporting Info”) as Appendix A to the Checklist, respectively, we were able to identify several model inputs that are inconsistent with information disclosed in the Checklist. As such, the Project’s construction and operation emissions are underestimated. An 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 Individual Construction Phase Lengths

Review of the CalEEMod output files demonstrates that the “Mapes & Sherman (Construction)” model includes changes to the default construction schedule (see excerpt below) (Appendix A, pp. 144).

Screen	Justification
Land Use	Total Project area is +/- 13.3 acres
Construction: Construction Phases	Construction anticipated to begin October 2023 and end August 2024
Construction: Off-Road Equipment	Equipment adjusted based on the changes made to the Construction Schedule
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Site Preparation, Grading, and Building Construction
Construction: Architectural Coatings	Rule 1113

As a result of these changes, the model includes the following construction schedule (see excerpt below) (Appendix A, pp. 134):

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase
Site Preparation	Site Preparation	10/3/2023	10/16/2023	5.00	10.0
Grading	Grading	10/17/2023	11/27/2023	5.00	30.0
Building Construction	Building Construction	11/28/2023	8/5/2024	5.00	180
Paving	Paving	7/9/2024	8/5/2024	5.00	20.0
Architectural Coating	Architectural Coating	6/11/2024	8/5/2024	5.00	40.0

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

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

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.<sup>5</sup> As demonstrated above in the "User Changes to Default Data" table, the justification provided for these changes is:

"Construction anticipated to begin October 2023 and end August 2024" (Appendix A, pp. 144)

Regarding the Project's anticipated construction duration, the Checklist states:

"The proposed project would be constructed in a single phase that would last approximately 10 months, estimated to begin in October 2023, with construction expected to be completed in July 2024." (p. 3).

Furthermore, the AQ & GHG Supporting Info provides the following construction duration (see excerpt below) (p. 50, Table 3-1):

**TABLE 3-1: CONSTRUCTION DURATION**

Construction Activity	Start Date	End Date	Working Days
Site Preparation	10/03/2023	10/16/2023	10
Grading	10/17/2023	11/27/2023	30
Building Construction	11/28/2023	08/05/2024	180
Paving	07/09/2024	08/05/2024	20
Architectural Coating	06/11/2024	08/05/2024	40

However, the changes to the individual construction phase lengths remain unsubstantiated. While the Checklist states that the total length of Project construction would be 10 months, the Checklist fails to provide a source for the individual construction phase lengths, as demonstrated above by Table 3-1. Until a proper source is provided, the model should have included proportionately altered individual phase lengths to match the proposed construction duration of 10 months.<sup>6</sup>

The construction schedule included in the model presents an issue, as the construction emissions are improperly spread out over a longer period of time for some phases, but not for others. According to the CalEEMod User's Guide, each construction phase is associated with different emissions activities (see excerpt below).<sup>7</sup>

<sup>5</sup> "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.

<sup>6</sup> See Attachment A for proportionately altered construction schedule.

<sup>7</sup> "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at*: <https://www.aqmd.gov/caleemod/user's-guide>, p. 32.

Demolition involves removing buildings or structures.

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

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

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

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

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

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

#### *Unsubstantiated Reductions to Architectural Coating Emission Factors*

Review of the CalEEMod output files demonstrates that the “Mapes & Sherman (Construction)” model include changes to the default architectural coating emission factors (see excerpt below) (Appendix A, pp. 144).

Screen	Justification
Land Use	Total Project area is +/- 13.3 acres
Construction: Construction Phases	Construction anticipated to begin October 2023 and end August 2024
Construction: Off-Road Equipment	Equipment adjusted based on the changes made to the Construction Schedule
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Site Preparation, Grading, and Building Construction
Construction: Architectural Coatings	Rule 1113

As previously mentioned, the CalEEMod User’s Guide requires any changes to model defaults be justified.<sup>8</sup> As demonstrated above in the “User Changes to Default Data” table, the justification provided for these changes is:

“Rule 1113” (Appendix A, pp. 144)

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

“The proposed project would be required to comply with existing SCAQMD rules for reduction of fugitive dust emissions (Rule 403) and architectural coatings (Rule 1113).” (p. 32).

<sup>8</sup> “CalEEMod User’s Guide.” California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at*: <https://www.aqmd.gov/cal-eemod/user's-guide>, p. 1, 14.

However, these reductions 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 VOC limits (grams of VOC per liter of coating) for 57 different coating categories.<sup>9</sup> The VOC limits for each coating varies from a minimum value of 50 g/L to a maximum value of 730 g/L. As such, we cannot verify that SCAQMD Rule 1113 substantiates reductions to the default coating values without more information regarding what category of coating will be used. As the DEIR and associated documents fail to explicitly require the use of a specific type of coating which would adhere to a specific VOC limit, we are unable to verify the model's revised emission factors.

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 A, pp. 136):

#### 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	427,392	142,464	14,700

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.

These unsubstantiated reductions present an issue, as CalEEMod uses the architectural coating emission factors to calculate the Project's reactive organic gas/volatile organic compound ("ROG"/"VOC") emissions.<sup>10</sup> By including unsubstantiated reductions to the default architectural coating emission factors, the model may underestimate the Project's construction-related ROG/VOC emissions and should not be relied upon to determine Project significance.

#### *Unsubstantiated Reductions to Natural Gas Energy Use Values*

Review of the CalEEMod output files demonstrates that the "Mapes & Sherman (Operations)" model includes changes to the default natural gas energy use values (see excerpt below) (Appendix A, pp. 179).

<sup>9</sup> 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.

<sup>10</sup> "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.

Screen	Justification
Land Use	Total Project area is +/- 13.3 acres
Construction: Construction Phases	Construction anticipated to begin October 2023 and end August 2024
Construction: Off-Road Equipment	Equipment adjusted based on the changes made to the Construction Schedule
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Site Preparation, Grading, and Building Construction
Construction: Architectural Coatings	Rule 1113
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	The Project will not use natural gas
Operations: Refrigerants	Per 17 CCR 95371, new refrigeration equipment containing >50 lbs of refrigerant in new facilities is prohibited from utilizing refrigerants with a GWP of 150 or greater as of 1 Jan 2022

Furthermore, the energy use table includes no natural gas whatsoever (see excerpt below):

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBtu/yr)
Unrefrigerated Warehouse-No Rail	1,277,512	349	0.0330	0.0040	0.00
User Defined Industrial	0.00	349	0.0330	0.0040	0.00
Parking Lot	77,080	349	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	349	0.0330	0.0040	0.00

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.<sup>11</sup> As demonstrated above in the "User Changes to Default Data" table, the justification provided for these changes is:

"The Project will not use natural gas" (Appendix A, pp. 179).

Furthermore, the Checklist states:

"The proposed project would not connect to any gas lines" (p. 3)

However, these changes remain unsubstantiated as the Checklist fails to require the Project to abstain from natural gas usage in a formal mitigation measure. According to the AEP *CEQA Portal Topic Paper* on mitigation measures:

"While not 'mitigation', a good practice is to include those project design feature(s) that address environmental impacts in the mitigation monitoring and reporting program (MMRP). Often the MMRP is all that accompanies building and construction plans through the permit process. If the design features are not listed as important to addressing an environmental impact, it is easy for someone not involved in the original environmental process to approve a change to the project that could eliminate one or more of the design features without understanding the resulting environmental impact."<sup>12</sup>

As demonstrated above, project design features that are not formally included in the mitigation monitoring and reporting program ("MMRP") may be eliminated from the Project's design altogether.

<sup>11</sup> "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at*: <https://www.agmd.gov/caleemod/user's-guide>, p. 1, 14.

<sup>12</sup> "CEQA Portal Topic Paper Mitigation Measures." AEP, February 2020, *available at*: <https://ceqaportal.org/tp/CEQA%20Mitigation%202020.pdf>, p. 6.

As the lack of natural gas use is not formally included as a mitigation measure, we cannot guarantee that the design feature would be implemented, monitored, and enforced on the Project site. Therefore, the assumption that the Project would not rely on natural gas is unsupported.

These unsubstantiated reductions present an issue, as the energy use values are used by CalEEMod to calculate the Project's emissions associated with building electricity and natural gas usage.<sup>13</sup> By assuming that the Project would not rely on any natural gas utilities, the model may underestimate the Project's operational emissions and should not be relied upon to determine Project significance.

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

In an effort to more accurately estimate the Project's construction-related and operational emissions, we utilized CalEEMod Version 2020.4.0, as well as the Project-specific information provided by the IS/MND.<sup>14</sup> Consistent with the Checklist's models, we included 277,578-SF of "Unrefrigerated Warehouse- No Rail," 377 spaces of "Parking Lot" and 145,000-SF of "Other Asphalt Surfaces." We assumed that the Project would be located within Climate Zone 11 and the Project's utilities would be provided by Southern California Edison.<sup>15, 16</sup> Additionally, we omitted the unsubstantiated changes to the architectural coating emission factors and the unsubstantiated reductions to natural gas energy use values; and proportionately altered the individual construction phase lengths.<sup>17</sup>

Our updated analysis estimates that the Project's construction-related VOC emissions would exceed the applicable South Coast Air Quality Management District ("SCAQMD") threshold of 75-pounds per day ("lbs/day"), as referenced by the IS/MND (see table below) (p. 36, Table 3.5-A).<sup>18</sup>

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<sup>13</sup> "CalEEMod User's Guide Version 2020.4.0." California Air Pollution Control Officers Association (CAPCOA), May 2021, available at: <https://www.aqmd.gov/caleemod/user's-guide>, p. 43.

<sup>14</sup> "CalEEMod Version 2020.4.0." California Air Pollution Control Officers Association (CAPCOA), March 2022, available at: <http://www.aqmd.gov/caleemod/download-model>.

<sup>15</sup> "Appendix F – Climate Zones Lookup." CAPCOA, September 2016, available at: <http://www.aqmd.gov/caleemod/user's-guide>.

<sup>16</sup> "Southern California Edison's Service Area." Southern California Edison, April 2019, available at: [https://download.newsroom.edison.com/create\\_memory\\_file/?f\\_id=5cc32d492cfac24d21aecf4c&content\\_verify\\_d=True](https://download.newsroom.edison.com/create_memory_file/?f_id=5cc32d492cfac24d21aecf4c&content_verify_d=True), pp. 2.

<sup>17</sup> See Attachment B for updated air modeling.

<sup>18</sup> "South Coast AQMD Air Quality Significance Thresholds." SCAQMD, April 2019, available at: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf>.

SWAPE Criteria Air Pollutant Emissions	
Construction	VOC (lbs/day)
Checklist	39.2
SWAPE	214.7
% Increase	448%
SCAQMD Threshold	75
Exceeds?	Yes

As you can see in the table above, the Project’s construction-related VOC emissions, as estimated by SWAPE, increase by approximately 448% and exceed the applicable SCAQMD significance threshold. Our updated model demonstrates that the Project would result in a potentially significant air quality impact that was not previously identified or addressed in the Checklist. An EIR should be prepared to adequately assess and mitigate the potential air quality impacts that the Project may have on the surrounding environment.

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

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

“Those living within a half mile of warehouses are more likely to include communities of color, have health impacts such as higher rates of asthma and heart attacks, and a greater environmental burden.”<sup>19</sup>

In particular, the SCAQMD found that more than 2.4 million people live within a half mile radius of at least one warehouse, and that those areas not only experience increased rates of asthma and heart attacks, but are also disproportionately Black and Latino communities below the poverty line.<sup>20</sup> Another study similarly indicates that “neighborhoods with lower household income levels and higher percentages of minorities are expected to have higher probabilities of containing warehousing facilities.”<sup>21</sup> Additionally, a report authored by the Inland Empire-based People’s Collective for Environmental Justice and University of Redlands states:

<sup>19</sup> “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>.

<sup>20</sup> “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>.

<sup>21</sup> “Location of warehouses and environmental justice: Evidence from four metros in California.” Metro Freight Center of Excellence, January 2018, *available at*:

“As the warehouse and logistics industry continues to grow and net exponential profits at record rates, more warehouse projects are being approved and constructed in low-income communities of color and serving as a massive source of pollution by attracting thousands of polluting truck trips daily. Diesel trucks emit dangerous levels of nitrogen oxide and particulate matter that cause devastating health impacts including asthma, chronic obstructive pulmonary disease (COPD), cancer, and premature death. As a result, physicians consider these pollution-burdened areas ‘diesel death zones.’”<sup>22</sup>

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

The development of the proposed warehouse would disproportionately contribute to and exacerbate the health conditions of residents in Riverside County. In April 2022, the American Lung Association ranked Riverside County as the second worst for ozone pollution in the nation.<sup>23</sup> This year, the County continues to face significant ozone pollution, as it has seen the second highest recorded Air Quality Index (“AQI”) values for ground-level ozone in California.<sup>24</sup> The U.S. Environmental Protection Agency (“U.S. 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.<sup>25</sup>

An EIR should be prepared to evaluate the disproportionate impacts of the proposed warehouse on the community adjacent to the Project, including an analysis of the impact on children and people of color who live and attend school in the surrounding area. Finally, in order to evaluate the cumulative air quality impact from the several warehouse projects proposed or built in a one-mile radius of the Project site, the EIR should prepare a revised 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. This recommendation is consistent with guidance provided by the California Department of Justice (“DOJ”).<sup>26</sup>

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[https://www.metrotrans.org/assets/research/MF%201.1g\\_Location%20of%20warehouses%20and%20environmental%20justice\\_Final%20Report\\_021618.pdf](https://www.metrotrans.org/assets/research/MF%201.1g_Location%20of%20warehouses%20and%20environmental%20justice_Final%20Report_021618.pdf), p. 21.

<sup>22</sup> “Warehouses, Pollution, and Social Disparities: An analytical view of the logistics industry’s impacts on environmental justice communities across Southern California.” People’s Collective for Environmental Justice, April 2021, *available at*:

[https://earthjustice.org/sites/default/files/files/warehouse\\_research\\_report\\_4.15.2021.pdf](https://earthjustice.org/sites/default/files/files/warehouse_research_report_4.15.2021.pdf), p. 4.

<sup>23</sup> “State of the Air 2022.” American Lung Association, April 2022, *available at*:

<https://www.lung.org/research/sota/key-findings/most-polluted-places>.

<sup>24</sup> “High Ozone Days.” American Lung Association, 2022, *available at*:

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

<sup>25</sup> “Health Effects of Ozone Pollution.” U.S. EPA, May 2021, *available at*: <https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution>.

<sup>26</sup> “Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act.” State of California Department of Justice, September 2022, *available at*:

<https://oag.ca.gov/system/files/media/warehouse-best-practices.pdf>, p. 6.

## Diesel Particulate Matter Emissions Inadequately Evaluated

The Checklist concludes that the proposed Project would result in a less-than-significant health risk impact based on a quantified construction and operational health risk assessment (“HRA”), which is detailed in Mobile Source Health Risk Assessment (“HRA Report”) as Appendix A.3 to the Checklist. Specifically, the HRA Report estimates that the maximum cancer risk posed to nearby, existing residential sensitive receptors associated with construction and operation would be 4.90 in one million, which would not exceed the SCAQMD significance threshold of 10 in one million (see excerpt below) (p. 4, Table ES-3).

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

Time Period	Location	Maximum Lifetime Cancer Risk (Risk per Million)	Significance Threshold (Risk per Million)	Exceeds Significance Threshold	Significance Findings
30 Year Exposure	Maximum Exposed Sensitive Receptor	4.90	10	NO	Less Than Significance
Time Period	Location	Maximum Hazard Index	Significance Threshold	Exceeds Significance Threshold	Significance Findings
Annual Average	Maximum Exposed Sensitive Receptor	≤0.01	1.0	NO	Less Than Significance

However, the Checklist’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, Checklist’s operational HRA underestimates the Fraction of Time at Home (“FAH”) values. Specifically, the HRA 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 excerpts below) (Appendix A, p. 19, 20, Table 2-7).

**TABLE 2-7: 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."<sup>27</sup>

As stated above, per SCAQMD guidance, the operational HRA should have relied on an FAH value of 1 for the third trimester, infant, and child receptors. By utilizing incorrect FAH values, the Checklist underestimates the cancer risk posed to nearby, existing sensitive receptors as a result of Project operation.

Second, further review demonstrates that the HRAs may fail to include Age Sensitivity Factors ("ASFs"). Regarding ASFs, OEHHA guidance states:

"Studies have shown that young animals are more sensitive than adult animals to exposure to many carcinogens (OEHHA, 2009). Therefore, OEHHA developed age sensitivity factors (ASFs) to take into account the increased sensitivity to carcinogens during early-in-life exposure (Table 8.3). These factors were developed and described in detail in OEHHA (2009). In the absence of chemical-specific data, OEHHA recommends a default ASF of 10 for the third trimester to age 2 years, and an ASF of 3 for ages 2 through 15 years to account for potential increased sensitivity to carcinogens during childhood."

However, while the HRAs include ASFs in the exposure assumption tables, the equation to produce carcinogenic risk estimates, as shown below, is incorrect and underestimated (p. 21, 22).

$$RISK_{air} = DOSE_{air} \times CPF \times ED/AT$$

Where:

DOSE <sub>air</sub>	=	chronic daily intake (mg/kg/day)
CPF	=	cancer potency factor
ED	=	number of years within particular age group
AT	=	averaging time

Instead, the HRAs should have used the following equation that includes ASFs:

$$Cancer\ Risk_{AIR} = Dose_{AIR} \times CPF \times ASF \times FAH \times \frac{ED}{AT}$$

Thus, by potentially failing to include ASF values in the carcinogenic risk estimate equation, the Checklist's HRA underestimates the cancer risk posed to nearby, existing sensitive receptors as a result

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<sup>27</sup> "Risk Assessment Procedures." SCAQMD, August 2017, available at: [http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1401/riskassessmentprocedures\\_2017\\_080717.pdf](http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1401/riskassessmentprocedures_2017_080717.pdf), p. 7.

of Project construction and operation. An EIR should be prepared to include an updated analysis correctly accounting for the correct FAH and ASF values.

## Greenhouse Gas

### Failure to Adequately Evaluate Greenhouse Gas Impacts

The Checklist estimates that the Project would generate net annual greenhouse gas (“GHG”) emissions of 2,421 metric tons of carbon dioxide equivalents per year (“MT CO<sub>2</sub>e/year”) (see excerpt below) (p. 59, Table 6).

**Table 6: Project GHG Emissions**

Emission Source	Emissions (MT/year)				
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	Refrigerants	Total CO <sub>2</sub> e
Annual construction-related emissions amortized over 30 years	21.37	1.00E-03	1.00E-03	0.01	21.70
Mobile Source	1,558.00	0.04	0.15	2.25	1,606.00
Area Source	5.63	0.00	0.00	0.00	5.79
Energy Source	214.00	0.02	0.00	0.00	215.00
Water Usage	90.40	2.09	0.05	0.00	158.00
Waste	23.30	2.33	0.00	0.00	81.50
Refrigerants	0.00	0.00	0.00	46.80	46.80
On-Site Equipment					286.15
<b>Total CO<sub>2</sub>e (All Sources)</b>					<b>2,421</b>

As such, the Checklist states

“As shown in Table 6, the proposed project would result in a total of approximately 2,421 MT CO<sub>2</sub>e/year, which would not exceed the SCAQMD’s screening threshold of 3,000 MT CO<sub>2</sub>e/year. As such, the proposed project would not have the potential to result in a cumulatively considerable impact with respect to GHG emissions” (p. 59).

As demonstrated above, the Checklist compares the Project’s total carbon emissions to a 3,000 MT CO<sub>2</sub>e/year threshold. Furthermore, the Checklist’s analysis relies upon the Project’s consistency with the CARB’s 2017 Scoping Plan to conclude that the Project would result in a less-than-significant GHG impact (p. 59). However, the Checklist’s analysis, as well as the subsequent less-than-significant impact conclusion, is incorrect for three reasons.

- (1) The Checklist’s quantitative analysis relies upon a flawed air model;
- (2) The Checklist’s GHG analysis relies upon an outdated quantitative GHG threshold; and
- (3) The IS/MND’s unsubstantiated air model indicates a potentially significant impact.

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

As previously stated, the Checklist estimates that the Project would generate net annual GHG emissions of 2,421 MT CO<sub>2</sub>e (p. 59, Table 6). However, the Checklist’s quantitative analysis is unsubstantiated. As previously discussed, when reviewing the Project’s CalEEMod models, provided in the AQ & GHG

Supporting Info, we found that several of the values inputted into the models are not consistent with information disclosed in the Checklist. As a result, the models may underestimate the Project's emissions, and the Checklist's quantitative analysis should not be relied upon to determine Project significance. An EIR should be prepared that adequately assesses the potential GHG impacts that construction and operation of the proposed Project may have on the environment.

### *2) Incorrect and Unsubstantiated Quantitative Analysis of Emissions*

As previously stated, the Checklist uses a threshold of 3,000 MT CO<sub>2</sub>e/year to determine the Project's potential GHG impacts. However, the guidance that provided the 3,000 MT CO<sub>2</sub>e/year threshold, the SCAQMD's 2008 *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules, and Plans* report, was developed when the Global Warming Solutions Act of 2006, commonly known as "AB 32", was the governing statute for GHG reductions in California. AB 32 requires California to reduce GHG emissions to 1990 levels by 2020.<sup>28</sup> Furthermore, AEP guidance states:

"[F]or evaluating projects with a post 2020 horizon, the threshold will need to be revised based on a new gap analysis that would examine 17 development and reduction potentials out to the next GHG reduction milestone."<sup>29</sup>

As it is currently May 2022, thresholds for 2020 are not applicable to the proposed Project and should be revised to reflect the current GHG reduction target. As such, the SCAQMD bright-line threshold of 3,000 MT CO<sub>2</sub>e/year is outdated and inapplicable to the proposed Project, and the Checklist's less-than-significant GHG impact conclusion should not be relied upon. Instead, we recommend that the Project apply the SCAQMD 2035 service population efficiency target of 3.0 metric tons of carbon dioxide equivalents per service population per year ("MT CO<sub>2</sub>e/SP/year"), which was calculated by applying a 40% reduction to the 2020 targets.<sup>30</sup>

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

In an effort to quantitatively evaluate the Project's GHG emissions, we compared the Project's GHG emissions, as estimated by the Checklist, to the SCAQMD 2035 efficiency target of 3.0 MT CO<sub>2</sub>e/SP/year. When applying this threshold, the Project's air model indicates a potentially significant GHG impact.

As previously stated, the Checklist estimates that the Project would generate net annual GHG emissions of 2,421 MT CO<sub>2</sub>e/year (p. 59, Table 6). 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

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<sup>28</sup> "Health & Safety Code 38550." California State Legislature, January 2007, *available at*: [https://leginfo.ca.gov/faces/codes\\_displaySection.xhtml?lawCode=HSC&sectionNum=38550](https://leginfo.ca.gov/faces/codes_displaySection.xhtml?lawCode=HSC&sectionNum=38550).

<sup>29</sup> "Beyond Newhall and 2020: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California." Association of Environmental Professionals (AEP), October 2016, *available at*: [https://califaep.org/docs/AEP-2016\\_Final\\_White\\_Paper.pdf](https://califaep.org/docs/AEP-2016_Final_White_Paper.pdf), p. 39.

<sup>30</sup> "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](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.

by the project.”<sup>31</sup> The Checklist indicates that the Project would generate approximately 603 jobs (p. 3). As the proposed Project does not include any residential land uses, we estimate a SP of 603 people. When dividing the Project’s net annual GHG emissions, as estimated by the Checklist, by a SP of 603 people, we find that the Project would emit approximately 4.0 MT CO<sub>2</sub>e/SP/year (see table below).<sup>32</sup>

Checklist Greenhouse Gas Emissions	
Annual Emissions (MT CO <sub>2</sub> e/year)	2,421
Service Population	603
Service Population Efficiency (MT CO <sub>2</sub> e/SP/year)	4.0
<b>SCAQMD 2035 Target</b>	<b>3.0</b>
<i>Exceeds?</i>	<b>Yes</b>

As demonstrated above, the Project’s service population efficiency value, as estimated by the Checklist’s provided net annual GHG emission estimates and SP, exceeds the SCAQMD 2035 efficiency target of 3.0 MT CO<sub>2</sub>e/SP/year, indicating a potentially significant impact not previously identified or addressed by the Checklist. As a result, the Checklist’s less-than-significant GHG impact conclusion should not be relied upon. An EIR should be prepared, including an updated GHG analysis and incorporating additional mitigation measures to reduce the Project’s GHG emissions to less-than-significant levels.

## Mitigation

### Feasible Mitigation Measures Available to Reduce Emissions

Our analysis demonstrates that the Project would result in potentially significant air quality and GHG impacts that should be mitigated further. In an effort 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.<sup>33</sup>

- 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.

<sup>31</sup> “CEQA & Climate Change.” California Air Pollution Control Officers Association (CAPCOA), January 2008, available at: <http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA-White-Paper.pdf>, p. 71-72.

<sup>32</sup> Calculated: (1,668 MT CO<sub>2</sub>e/year) / (114 service population) = (14.6 MT CO<sub>2</sub>e/SP/year).

<sup>33</sup> “Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act.” State of California Department of Justice, September 2022, available at: <https://oag.ca.gov/system/files/media/warehouse-best-practices.pdf>, p. 8 – 10.

- 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.

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

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

## Disclaimer

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

Sincerely,

A handwritten signature in blue ink, appearing to read "Matt Hagemann".

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

A handwritten signature in blue ink, appearing to read "Paul E. Rosenfeld".

Paul E. Rosenfeld, Ph.D.

Attachment A: Updated Construction Schedule  
Attachment B: Updated CalEEMod Output Files  
Attachment C: Matt Hagemann CV  
Attachment D: Paul Rosenfeld CV

Construction Schedule Calculations					
Phase	Default Phase Length	Construction Duration	%	Construction Duration	Revised Phase Length
Site Preparation	10	531	0.0188	307	6
Grading	30	531	0.0565	307	17
Construction	300	531	0.5650	307	173
Paving	20	531	0.0377	307	12
Architectural Coating	20	531	0.0377	307	12

	Total Default Construction Duration	Revised Construction Duration
Start Date	10/3/2023	10/3/2023
End Date	3/17/2025	8/5/2024
Total Days	531	307

## Mapes &amp; Sherman - South Coast AQMD Air District, Annual

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

**Mapes & Sherman**  
**South Coast AQMD Air District, Annual**

**1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	277.58	1000sqft	7.98	277,578.00	0
Parking Lot	377.00	Space	2.02	0.00	0
Other Asphalt Surfaces	145.00	1000sqft	3.33	0.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	31
<b>Climate Zone</b>	11			<b>Operational Year</b>	2025
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	390.98	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

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

Project Characteristics - Consistent with the Checklist's model.

Land Use - Consistent with the Checklist's model.

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

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

Grading - Consistent with the Checklist's model.

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

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

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

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

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

## Mapes &amp; Sherman - South Coast AQMD Air District, Annual

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

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

Vehicle Trips -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	12.00
tblConstructionPhase	NumDays	300.00	173.00
tblConstructionPhase	NumDays	30.00	17.00
tblConstructionPhase	NumDays	20.00	12.00
tblConstructionPhase	NumDays	10.00	6.00
tblConstructionPhase	PhaseEndDate	3/17/2025	8/5/2024
tblConstructionPhase	PhaseEndDate	1/20/2025	7/2/2024
tblConstructionPhase	PhaseEndDate	11/27/2023	11/2/2023
tblConstructionPhase	PhaseEndDate	2/17/2025	7/18/2024
tblConstructionPhase	PhaseEndDate	10/16/2023	10/10/2023
tblConstructionPhase	PhaseStartDate	2/18/2025	7/19/2024
tblConstructionPhase	PhaseStartDate	11/28/2023	11/3/2023
tblConstructionPhase	PhaseStartDate	10/17/2023	10/11/2023
tblConstructionPhase	PhaseStartDate	1/21/2025	7/3/2024
tblGrading	AcresOfGrading	51.00	120.00
tblGrading	AcresOfGrading	9.00	35.00
tblGrading	MaterialImported	0.00	10,100.00
tblLandUse	LandUseSquareFeet	277,580.00	277,578.00
tblLandUse	LandUseSquareFeet	150,800.00	0.00
tblLandUse	LandUseSquareFeet	145,000.00	0.00
tblLandUse	LotAcreage	6.37	7.98
tblLandUse	LotAcreage	3.39	2.02
tblOffRoadEquipment	HorsePower	78.00	37.00
tblOffRoadEquipment	HorsePower	231.00	367.00
tblOffRoadEquipment	HorsePower	158.00	36.00

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

tblOffRoadEquipment	HorsePower	89.00	82.00
tblOffRoadEquipment	HorsePower	84.00	14.00
tblOffRoadEquipment	HorsePower	187.00	148.00
tblOffRoadEquipment	HorsePower	130.00	81.00
tblOffRoadEquipment	HorsePower	132.00	89.00
tblOffRoadEquipment	HorsePower	80.00	36.00
tblOffRoadEquipment	HorsePower	247.00	367.00
tblOffRoadEquipment	HorsePower	247.00	367.00
tblOffRoadEquipment	HorsePower	367.00	423.00
tblOffRoadEquipment	HorsePower	97.00	87.00
tblOffRoadEquipment	HorsePower	97.00	87.00
tblOffRoadEquipment	HorsePower	97.00	87.00
tblOffRoadEquipment	LoadFactor	0.37	0.43
tblOffRoadEquipment	LoadFactor	0.37	0.43
tblOffRoadEquipment	LoadFactor	0.37	0.43
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	HaulingTripNumber	1,263.00	42.00
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	3.00
tblTripsAndVMT	VendorTripNumber	0.00	7.00
tblTripsAndVMT	VendorTripNumber	45.00	37.00
tblTripsAndVMT	WorkerTripLength	14.70	18.50
tblTripsAndVMT	WorkerTripLength	14.70	18.50

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

tbITripsAndVMT	WorkerTripLength	14.70	18.50
tbITripsAndVMT	WorkerTripLength	14.70	18.50
tbITripsAndVMT	WorkerTripLength	14.70	18.50

2.0 Emissions Summary

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## Mapes &amp; Sherman - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****2.1 Overall Construction****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0884	0.8025	0.8552	1.7800e-003	0.2324	0.0346	0.2670	0.0788	0.0320	0.1108	0.0000	158.0307	158.0307	0.0349	3.9400e-003	160.0784
2024	1.4293	1.1035	1.4657	3.4200e-003	0.1325	0.0449	0.1774	0.0357	0.0418	0.0775	0.0000	305.7038	305.7038	0.0516	0.0109	310.2329
<b>Maximum</b>	<b>1.4293</b>	<b>1.1035</b>	<b>1.4657</b>	<b>3.4200e-003</b>	<b>0.2324</b>	<b>0.0449</b>	<b>0.2670</b>	<b>0.0788</b>	<b>0.0418</b>	<b>0.1108</b>	<b>0.0000</b>	<b>305.7038</b>	<b>305.7038</b>	<b>0.0516</b>	<b>0.0109</b>	<b>310.2329</b>

**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					
2023	0.0884	0.8025	0.8552	1.7800e-003	0.2324	0.0346	0.2670	0.0788	0.0320	0.1108	0.0000	158.0306	158.0306	0.0349	3.9400e-003	160.0783
2024	1.4293	1.1035	1.4657	3.4200e-003	0.1325	0.0449	0.1774	0.0357	0.0418	0.0775	0.0000	305.7036	305.7036	0.0516	0.0109	310.2327
<b>Maximum</b>	<b>1.4293</b>	<b>1.1035</b>	<b>1.4657</b>	<b>3.4200e-003</b>	<b>0.2324</b>	<b>0.0449</b>	<b>0.2670</b>	<b>0.0788</b>	<b>0.0418</b>	<b>0.1108</b>	<b>0.0000</b>	<b>305.7036</b>	<b>305.7036</b>	<b>0.0516</b>	<b>0.0109</b>	<b>310.2327</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, 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
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	10-3-2023	1-2-2024	0.8957	0.8957
2	1-3-2024	4-2-2024	0.5769	0.5769
3	4-3-2024	7-2-2024	0.5725	0.5725
4	7-3-2024	9-30-2024	1.4517	1.4517
		Highest	1.4517	1.4517

**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	1.1326	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0198	0.0198	5.0000e-005	0.0000	0.0211
Energy	1.2900e-003	0.0117	9.8300e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004	0.0000	201.2791	201.2791	0.0162	2.1600e-003	202.3275
Mobile	0.2726	0.3456	2.9873	7.0300e-003	0.7793	5.0500e-003	0.7843	0.2080	4.7000e-003	0.2127	0.0000	650.0850	650.0850	0.0397	0.0277	659.3276
Waste						0.0000	0.0000		0.0000	0.0000	52.9664	0.0000	52.9664	3.1302	0.0000	131.2221
Water						0.0000	0.0000		0.0000	0.0000	20.3646	148.2295	168.5941	2.1042	0.0509	236.3676
Total	1.4065	0.3574	3.0073	7.1000e-003	0.7793	5.9800e-003	0.7853	0.2080	5.6300e-003	0.2136	73.3311	999.6134	1,072.9445	5.2903	0.0808	1,229.2659

## Mapes &amp; Sherman - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****2.2 Overall Operational****Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.1326	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0198	0.0198	5.0000e-005	0.0000	0.0211
Energy	1.2900e-003	0.0117	9.8300e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004	0.0000	201.2791	201.2791	0.0162	2.1600e-003	202.3275
Mobile	0.2726	0.3456	2.9873	7.0300e-003	0.7793	5.0500e-003	0.7843	0.2080	4.7000e-003	0.2127	0.0000	650.0850	650.0850	0.0397	0.0277	659.3276
Waste						0.0000	0.0000		0.0000	0.0000	52.9664	0.0000	52.9664	3.1302	0.0000	131.2221
Water						0.0000	0.0000		0.0000	0.0000	20.3646	148.2295	168.5941	2.1042	0.0509	236.3676
<b>Total</b>	<b>1.4065</b>	<b>0.3574</b>	<b>3.0073</b>	<b>7.1000e-003</b>	<b>0.7793</b>	<b>5.9800e-003</b>	<b>0.7853</b>	<b>0.2080</b>	<b>5.6300e-003</b>	<b>0.2136</b>	<b>73.3311</b>	<b>999.6134</b>	<b>1,072.9445</b>	<b>5.2903</b>	<b>0.0808</b>	<b>1,229.2659</b>

	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
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail****Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	10/3/2023	10/10/2023	5	6	
2	Grading	Grading	10/11/2023	11/2/2023	5	17	
3	Building Construction	Building Construction	11/3/2023	7/2/2024	5	173	

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

4	Paving	Paving	7/3/2024	7/18/2024	5	12
5	Architectural Coating	Architectural Coating	7/19/2024	8/5/2024	5	12

**Acres of Grading (Site Preparation Phase): 35****Acres of Grading (Grading Phase): 120****Acres of Paving: 5.35****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 416,367; Non-Residential Outdoor: 138,789; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	8.00	37	0.48
Building Construction	Cranes	1	8.00	367	0.29
Grading	Excavators	2	8.00	36	0.38
Building Construction	Forklifts	3	8.00	82	0.20
Building Construction	Generator Sets	1	8.00	14	0.74
Grading	Graders	1	8.00	148	0.41
Paving	Pavers	2	8.00	81	0.42
Paving	Paving Equipment	2	8.00	89	0.36
Paving	Rollers	2	8.00	36	0.38
Grading	Rubber Tired Dozers	1	8.00	367	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	367	0.40
Grading	Scrapers	2	8.00	423	0.48
Building Construction	Tractors/Loaders/Backhoes	3	8.00	87	0.43
Grading	Tractors/Loaders/Backhoes	2	8.00	87	0.43
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	87	0.43
Building Construction	Welders	1	8.00	46	0.45

**Trips and VMT**

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

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
Site Preparation	7	18.00	3.00	0.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	7.00	42.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	117.00	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	23.00	0.00	0.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction****3.2 Site Preparation - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0728	0.0000	0.0728	0.0318	0.0000	0.0318	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0123	0.1219	0.1138	1.5000e-004		5.6400e-003	5.6400e-003		5.1900e-003	5.1900e-003	0.0000	13.5576	13.5576	4.3800e-003	0.0000	13.6673
<b>Total</b>	<b>0.0123</b>	<b>0.1219</b>	<b>0.1138</b>	<b>1.5000e-004</b>	<b>0.0728</b>	<b>5.6400e-003</b>	<b>0.0784</b>	<b>0.0318</b>	<b>5.1900e-003</b>	<b>0.0370</b>	<b>0.0000</b>	<b>13.5576</b>	<b>13.5576</b>	<b>4.3800e-003</b>	<b>0.0000</b>	<b>13.6673</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.2 Site Preparation - 2023****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	4.6000e-004	1.5000e-004	0.0000	8.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	3.0000e-005	0.0000	0.2304	0.2304	1.0000e-005	3.0000e-005	0.2406
Worker	2.0000e-004	1.6000e-004	2.1500e-003	1.0000e-005	7.5000e-004	0.0000	7.5000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.5811	0.5811	1.0000e-005	1.0000e-005	0.5857
<b>Total</b>	<b>2.1000e-004</b>	<b>6.2000e-004</b>	<b>2.3000e-003</b>	<b>1.0000e-005</b>	<b>8.3000e-004</b>	<b>0.0000</b>	<b>8.4000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>2.3000e-004</b>	<b>0.0000</b>	<b>0.8115</b>	<b>0.8115</b>	<b>2.0000e-005</b>	<b>4.0000e-005</b>	<b>0.8262</b>

**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					0.0728	0.0000	0.0728	0.0318	0.0000	0.0318	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0123	0.1219	0.1138	1.5000e-004		5.6400e-003	5.6400e-003		5.1900e-003	5.1900e-003	0.0000	13.5576	13.5576	4.3800e-003	0.0000	13.6672
<b>Total</b>	<b>0.0123</b>	<b>0.1219</b>	<b>0.1138</b>	<b>1.5000e-004</b>	<b>0.0728</b>	<b>5.6400e-003</b>	<b>0.0784</b>	<b>0.0318</b>	<b>5.1900e-003</b>	<b>0.0370</b>	<b>0.0000</b>	<b>13.5576</b>	<b>13.5576</b>	<b>4.3800e-003</b>	<b>0.0000</b>	<b>13.6672</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.2 Site Preparation - 2023****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	4.6000e-004	1.5000e-004	0.0000	8.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	3.0000e-005	0.0000	0.2304	0.2304	1.0000e-005	3.0000e-005	0.2406
Worker	2.0000e-004	1.6000e-004	2.1500e-003	1.0000e-005	7.5000e-004	0.0000	7.5000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.5811	0.5811	1.0000e-005	1.0000e-005	0.5857
<b>Total</b>	<b>2.1000e-004</b>	<b>6.2000e-004</b>	<b>2.3000e-003</b>	<b>1.0000e-005</b>	<b>8.3000e-004</b>	<b>0.0000</b>	<b>8.4000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>2.3000e-004</b>	<b>0.0000</b>	<b>0.8115</b>	<b>0.8115</b>	<b>2.0000e-005</b>	<b>4.0000e-005</b>	<b>0.8262</b>

**3.3 Grading - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1154	0.0000	0.1154	0.0351	0.0000	0.0351	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0333	0.3336	0.2897	5.3000e-004		0.0145	0.0145		0.0133	0.0133	0.0000	46.4561	46.4561	0.0150	0.0000	46.8317
<b>Total</b>	<b>0.0333</b>	<b>0.3336</b>	<b>0.2897</b>	<b>5.3000e-004</b>	<b>0.1154</b>	<b>0.0145</b>	<b>0.1299</b>	<b>0.0351</b>	<b>0.0133</b>	<b>0.0484</b>	<b>0.0000</b>	<b>46.4561</b>	<b>46.4561</b>	<b>0.0150</b>	<b>0.0000</b>	<b>46.8317</b>

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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 Grading - 2023****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	2.6700e-003	7.2000e-004	1.0000e-005	3.6000e-004	2.0000e-005	3.8000e-004	1.0000e-004	2.0000e-005	1.2000e-004	0.0000	1.1978	1.1978	7.0000e-005	1.9000e-004	1.2562
Vendor	8.0000e-005	3.0200e-003	1.0000e-003	2.0000e-005	5.5000e-004	2.0000e-005	5.7000e-004	1.6000e-004	2.0000e-005	1.8000e-004	0.0000	1.5235	1.5235	5.0000e-005	2.2000e-004	1.5903
Worker	6.2000e-004	4.9000e-004	6.7600e-003	2.0000e-005	2.3500e-003	1.0000e-005	2.3600e-003	6.2000e-004	1.0000e-005	6.4000e-004	0.0000	1.8293	1.8293	4.0000e-005	4.0000e-005	1.8438
<b>Total</b>	<b>7.4000e-004</b>	<b>6.1800e-003</b>	<b>8.4800e-003</b>	<b>5.0000e-005</b>	<b>3.2600e-003</b>	<b>5.0000e-005</b>	<b>3.3100e-003</b>	<b>8.8000e-004</b>	<b>5.0000e-005</b>	<b>9.4000e-004</b>	<b>0.0000</b>	<b>4.5506</b>	<b>4.5506</b>	<b>1.6000e-004</b>	<b>4.5000e-004</b>	<b>4.6903</b>

**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					0.1154	0.0000	0.1154	0.0351	0.0000	0.0351	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0333	0.3336	0.2897	5.3000e-004		0.0145	0.0145		0.0133	0.0133	0.0000	46.4561	46.4561	0.0150	0.0000	46.8317
<b>Total</b>	<b>0.0333</b>	<b>0.3336</b>	<b>0.2897</b>	<b>5.3000e-004</b>	<b>0.1154</b>	<b>0.0145</b>	<b>0.1299</b>	<b>0.0351</b>	<b>0.0133</b>	<b>0.0484</b>	<b>0.0000</b>	<b>46.4561</b>	<b>46.4561</b>	<b>0.0150</b>	<b>0.0000</b>	<b>46.8317</b>

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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 Grading - 2023****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	2.6700e-003	7.2000e-004	1.0000e-005	3.6000e-004	2.0000e-005	3.8000e-004	1.0000e-004	2.0000e-005	1.2000e-004	0.0000	1.1978	1.1978	7.0000e-005	1.9000e-004	1.2562
Vendor	8.0000e-005	3.0200e-003	1.0000e-003	2.0000e-005	5.5000e-004	2.0000e-005	5.7000e-004	1.6000e-004	2.0000e-005	1.8000e-004	0.0000	1.5235	1.5235	5.0000e-005	2.2000e-004	1.5903
Worker	6.2000e-004	4.9000e-004	6.7600e-003	2.0000e-005	2.3500e-003	1.0000e-005	2.3600e-003	6.2000e-004	1.0000e-005	6.4000e-004	0.0000	1.8293	1.8293	4.0000e-005	4.0000e-005	1.8438
<b>Total</b>	<b>7.4000e-004</b>	<b>6.1800e-003</b>	<b>8.4800e-003</b>	<b>5.0000e-005</b>	<b>3.2600e-003</b>	<b>5.0000e-005</b>	<b>3.3100e-003</b>	<b>8.8000e-004</b>	<b>5.0000e-005</b>	<b>9.4000e-004</b>	<b>0.0000</b>	<b>4.5506</b>	<b>4.5506</b>	<b>1.6000e-004</b>	<b>4.5000e-004</b>	<b>4.6903</b>

**3.4 Building Construction - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0321	0.2948	0.3328	5.6000e-004		0.0140	0.0140		0.0130	0.0130	0.0000	47.4244	47.4244	0.0141	0.0000	47.7763
<b>Total</b>	<b>0.0321</b>	<b>0.2948</b>	<b>0.3328</b>	<b>5.6000e-004</b>		<b>0.0140</b>	<b>0.0140</b>		<b>0.0130</b>	<b>0.0130</b>	<b>0.0000</b>	<b>47.4244</b>	<b>47.4244</b>	<b>0.0141</b>	<b>0.0000</b>	<b>47.7763</b>

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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 Building Construction - 2023****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	9.8000e-004	0.0385	0.0128	2.0000e-004	7.0600e-003	2.4000e-004	7.3000e-003	2.0400e-003	2.2000e-004	2.2600e-003	0.0000	19.4208	19.4208	6.5000e-004	2.8100e-003	20.2733
Worker	8.7000e-003	6.9400e-003	0.0954	2.8000e-004	0.0331	1.9000e-004	0.0333	8.7900e-003	1.7000e-004	8.9600e-003	0.0000	25.8096	25.8096	6.0000e-004	6.3000e-004	26.0133
<b>Total</b>	<b>9.6800e-003</b>	<b>0.0454</b>	<b>0.1082</b>	<b>4.8000e-004</b>	<b>0.0402</b>	<b>4.3000e-004</b>	<b>0.0406</b>	<b>0.0108</b>	<b>3.9000e-004</b>	<b>0.0112</b>	<b>0.0000</b>	<b>45.2304</b>	<b>45.2304</b>	<b>1.2500e-003</b>	<b>3.4400e-003</b>	<b>46.2867</b>

**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	0.0321	0.2948	0.3328	5.6000e-004		0.0140	0.0140		0.0130	0.0130	0.0000	47.4244	47.4244	0.0141	0.0000	47.7762
<b>Total</b>	<b>0.0321</b>	<b>0.2948</b>	<b>0.3328</b>	<b>5.6000e-004</b>		<b>0.0140</b>	<b>0.0140</b>		<b>0.0130</b>	<b>0.0130</b>	<b>0.0000</b>	<b>47.4244</b>	<b>47.4244</b>	<b>0.0141</b>	<b>0.0000</b>	<b>47.7762</b>

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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 Building Construction - 2023****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	9.8000e-004	0.0385	0.0128	2.0000e-004	7.0600e-003	2.4000e-004	7.3000e-003	2.0400e-003	2.2000e-004	2.2600e-003	0.0000	19.4208	19.4208	6.5000e-004	2.8100e-003	20.2733
Worker	8.7000e-003	6.9400e-003	0.0954	2.8000e-004	0.0331	1.9000e-004	0.0333	8.7900e-003	1.7000e-004	8.9600e-003	0.0000	25.8096	25.8096	6.0000e-004	6.3000e-004	26.0133
<b>Total</b>	<b>9.6800e-003</b>	<b>0.0454</b>	<b>0.1082</b>	<b>4.8000e-004</b>	<b>0.0402</b>	<b>4.3000e-004</b>	<b>0.0406</b>	<b>0.0108</b>	<b>3.9000e-004</b>	<b>0.0112</b>	<b>0.0000</b>	<b>45.2304</b>	<b>45.2304</b>	<b>1.2500e-003</b>	<b>3.4400e-003</b>	<b>46.2867</b>

**3.4 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	0.0984	0.8983	1.0607	1.7900e-003		0.0403	0.0403		0.0375	0.0375	0.0000	152.6935	152.6935	0.0452	0.0000	153.8242
<b>Total</b>	<b>0.0984</b>	<b>0.8983</b>	<b>1.0607</b>	<b>1.7900e-003</b>		<b>0.0403</b>	<b>0.0403</b>		<b>0.0375</b>	<b>0.0375</b>	<b>0.0000</b>	<b>152.6935</b>	<b>152.6935</b>	<b>0.0452</b>	<b>0.0000</b>	<b>153.8242</b>

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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 Building Construction - 2024****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	3.0700e-003	0.1246	0.0405	6.3000e-004	0.0227	7.6000e-004	0.0235	6.5600e-003	7.3000e-004	7.2800e-003	0.0000	61.6278	61.6278	2.1000e-003	8.9200e-003	64.3376
Worker	0.0262	0.0199	0.2858	8.8000e-004	0.1066	5.7000e-004	0.1072	0.0283	5.3000e-004	0.0288	0.0000	80.6680	80.6680	1.7400e-003	1.9000e-003	81.2766
<b>Total</b>	<b>0.0293</b>	<b>0.1445</b>	<b>0.3263</b>	<b>1.5100e-003</b>	<b>0.1293</b>	<b>1.3300e-003</b>	<b>0.1307</b>	<b>0.0349</b>	<b>1.2600e-003</b>	<b>0.0361</b>	<b>0.0000</b>	<b>142.2958</b>	<b>142.2958</b>	<b>3.8400e-003</b>	<b>0.0108</b>	<b>145.6141</b>

**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	0.0984	0.8983	1.0607	1.7900e-003		0.0403	0.0403		0.0375	0.0375	0.0000	152.6934	152.6934	0.0452	0.0000	153.8240
<b>Total</b>	<b>0.0984</b>	<b>0.8983</b>	<b>1.0607</b>	<b>1.7900e-003</b>		<b>0.0403</b>	<b>0.0403</b>		<b>0.0375</b>	<b>0.0375</b>	<b>0.0000</b>	<b>152.6934</b>	<b>152.6934</b>	<b>0.0452</b>	<b>0.0000</b>	<b>153.8240</b>

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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 Building Construction - 2024****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	3.0700e-003	0.1246	0.0405	6.3000e-004	0.0227	7.6000e-004	0.0235	6.5600e-003	7.3000e-004	7.2800e-003	0.0000	61.6278	61.6278	2.1000e-003	8.9200e-003	64.3376
Worker	0.0262	0.0199	0.2858	8.8000e-004	0.1066	5.7000e-004	0.1072	0.0283	5.3000e-004	0.0288	0.0000	80.6680	80.6680	1.7400e-003	1.9000e-003	81.2766
<b>Total</b>	<b>0.0293</b>	<b>0.1445</b>	<b>0.3263</b>	<b>1.5100e-003</b>	<b>0.1293</b>	<b>1.3300e-003</b>	<b>0.1307</b>	<b>0.0349</b>	<b>1.2600e-003</b>	<b>0.0361</b>	<b>0.0000</b>	<b>142.2958</b>	<b>142.2958</b>	<b>3.8400e-003</b>	<b>0.0108</b>	<b>145.6141</b>

**3.5 Paving - 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	6.0000e-003	0.0528	0.0612	8.0000e-005		3.0100e-003	3.0100e-003		2.7700e-003	2.7700e-003	0.0000	7.3637	7.3637	2.3800e-003	0.0000	7.4233
Paving	7.0100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0130</b>	<b>0.0528</b>	<b>0.0612</b>	<b>8.0000e-005</b>		<b>3.0100e-003</b>	<b>3.0100e-003</b>		<b>2.7700e-003</b>	<b>2.7700e-003</b>	<b>0.0000</b>	<b>7.3637</b>	<b>7.3637</b>	<b>2.3800e-003</b>	<b>0.0000</b>	<b>7.4233</b>

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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 Paving - 2024****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	3.1000e-004	2.3000e-004	3.3300e-003	1.0000e-005	1.2400e-003	1.0000e-005	1.2500e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	0.9402	0.9402	2.0000e-005	2.0000e-005	0.9473
<b>Total</b>	<b>3.1000e-004</b>	<b>2.3000e-004</b>	<b>3.3300e-003</b>	<b>1.0000e-005</b>	<b>1.2400e-003</b>	<b>1.0000e-005</b>	<b>1.2500e-003</b>	<b>3.3000e-004</b>	<b>1.0000e-005</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>0.9402</b>	<b>0.9402</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.9473</b>

**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	6.0000e-003	0.0528	0.0612	8.0000e-005		3.0100e-003	3.0100e-003		2.7700e-003	2.7700e-003	0.0000	7.3637	7.3637	2.3800e-003	0.0000	7.4233
Paving	7.0100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0130</b>	<b>0.0528</b>	<b>0.0612</b>	<b>8.0000e-005</b>		<b>3.0100e-003</b>	<b>3.0100e-003</b>		<b>2.7700e-003</b>	<b>2.7700e-003</b>	<b>0.0000</b>	<b>7.3637</b>	<b>7.3637</b>	<b>2.3800e-003</b>	<b>0.0000</b>	<b>7.4233</b>

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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 Paving - 2024****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	3.1000e-004	2.3000e-004	3.3300e-003	1.0000e-005	1.2400e-003	1.0000e-005	1.2500e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	0.9402	0.9402	2.0000e-005	2.0000e-005	0.9473
<b>Total</b>	<b>3.1000e-004</b>	<b>2.3000e-004</b>	<b>3.3300e-003</b>	<b>1.0000e-005</b>	<b>1.2400e-003</b>	<b>1.0000e-005</b>	<b>1.2500e-003</b>	<b>3.3000e-004</b>	<b>1.0000e-005</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>0.9402</b>	<b>0.9402</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.9473</b>

**3.6 Architectural Coating - 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					
Archit. Coating	1.2866					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3200e-003	7.2600e-003	9.1700e-003	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	0.9689	0.9689	1.1000e-004	0.0000	0.9716
<b>Total</b>	<b>1.2879</b>	<b>7.2600e-003</b>	<b>9.1700e-003</b>	<b>1.0000e-005</b>		<b>2.5000e-004</b>	<b>2.5000e-004</b>		<b>2.5000e-004</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>0.9689</b>	<b>0.9689</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.9716</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.6 Architectural Coating - 2024****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	4.7000e-004	3.6000e-004	5.1100e-003	2.0000e-005	1.9100e-003	1.0000e-005	1.9200e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.4416	1.4416	3.0000e-005	3.0000e-005	1.4525
<b>Total</b>	<b>4.7000e-004</b>	<b>3.6000e-004</b>	<b>5.1100e-003</b>	<b>2.0000e-005</b>	<b>1.9100e-003</b>	<b>1.0000e-005</b>	<b>1.9200e-003</b>	<b>5.1000e-004</b>	<b>1.0000e-005</b>	<b>5.2000e-004</b>	<b>0.0000</b>	<b>1.4416</b>	<b>1.4416</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>1.4525</b>

**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	1.2866					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3200e-003	7.2600e-003	9.1700e-003	1.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	0.9689	0.9689	1.1000e-004	0.0000	0.9716
<b>Total</b>	<b>1.2879</b>	<b>7.2600e-003</b>	<b>9.1700e-003</b>	<b>1.0000e-005</b>		<b>2.5000e-004</b>	<b>2.5000e-004</b>		<b>2.5000e-004</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>0.9689</b>	<b>0.9689</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.9716</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.6 Architectural Coating - 2024****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	4.7000e-004	3.6000e-004	5.1100e-003	2.0000e-005	1.9100e-003	1.0000e-005	1.9200e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.4416	1.4416	3.0000e-005	3.0000e-005	1.4525
<b>Total</b>	<b>4.7000e-004</b>	<b>3.6000e-004</b>	<b>5.1100e-003</b>	<b>2.0000e-005</b>	<b>1.9100e-003</b>	<b>1.0000e-005</b>	<b>1.9200e-003</b>	<b>5.1000e-004</b>	<b>1.0000e-005</b>	<b>5.2000e-004</b>	<b>0.0000</b>	<b>1.4416</b>	<b>1.4416</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>1.4525</b>

**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

## Mapes &amp; Sherman - South Coast AQMD Air District, 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	0.2726	0.3456	2.9873	7.0300e-003	0.7793	5.0500e-003	0.7843	0.2080	4.7000e-003	0.2127	0.0000	650.0850	650.0850	0.0397	0.0277	659.3276
Unmitigated	0.2726	0.3456	2.9873	7.0300e-003	0.7793	5.0500e-003	0.7843	0.2080	4.7000e-003	0.2127	0.0000	650.0850	650.0850	0.0397	0.0277	659.3276

**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		
Unrefrigerated Warehouse-No Rail	482.99	482.99	482.99	2,069,955	2,069,955
Total	482.99	482.99	482.99	2,069,955	2,069,955

**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
Unrefrigerated Warehouse-No Rail	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
Parking Lot	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657

## Mapes &amp; Sherman - South Coast AQMD Air District, Annual

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

Unrefrigerated Warehouse-No Rail	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
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**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	188.5403	188.5403	0.0159	1.9300e-003	189.5129
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	188.5403	188.5403	0.0159	1.9300e-003	189.5129
NaturalGas Mitigated	1.2900e-003	0.0117	9.8300e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004	0.0000	12.7389	12.7389	2.4000e-004	2.3000e-004	12.8146
NaturalGas Unmitigated	1.2900e-003	0.0117	9.8300e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004	0.0000	12.7389	12.7389	2.4000e-004	2.3000e-004	12.8146

## Mapes &amp; Sherman - South Coast AQMD Air District, 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
Unrefrigerated Warehouse-No Rail	238717	1.2900e-003	0.0117	9.8300e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004	0.0000	12.7389	12.7389	2.4000e-004	2.3000e-004	12.8146
<b>Total</b>		<b>1.2900e-003</b>	<b>0.0117</b>	<b>9.8300e-003</b>	<b>7.0000e-005</b>		<b>8.9000e-004</b>	<b>8.9000e-004</b>		<b>8.9000e-004</b>	<b>8.9000e-004</b>	<b>0.0000</b>	<b>12.7389</b>	<b>12.7389</b>	<b>2.4000e-004</b>	<b>2.3000e-004</b>	<b>12.8146</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, 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
Unrefrigerated Warehouse-No Rail	238717	1.2900e-003	0.0117	9.8300e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004	0.0000	12.7389	12.7389	2.4000e-004	2.3000e-004	12.8146
<b>Total</b>		<b>1.2900e-003</b>	<b>0.0117</b>	<b>9.8300e-003</b>	<b>7.0000e-005</b>		<b>8.9000e-004</b>	<b>8.9000e-004</b>		<b>8.9000e-004</b>	<b>8.9000e-004</b>	<b>0.0000</b>	<b>12.7389</b>	<b>12.7389</b>	<b>2.4000e-004</b>	<b>2.3000e-004</b>	<b>12.8146</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, 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
Unrefrigerated Warehouse-No Rail	1.06312e+006	188.5403	0.0159	1.9300e-003	189.5129
<b>Total</b>		<b>188.5403</b>	<b>0.0159</b>	<b>1.9300e-003</b>	<b>189.5129</b>

Mapes & Sherman - South Coast AQMD Air District, 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

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
Unrefrigerated Warehouse-No Rail	1.06312e+006	188.5403	0.0159	1.9300e-003	189.5129
Total		188.5403	0.0159	1.9300e-003	189.5129

6.0 Area Detail

6.1 Mitigation Measures Area

## Mapes &amp; Sherman - South Coast AQMD Air District, 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	1.1326	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0198	0.0198	5.0000e-005	0.0000	0.0211
Unmitigated	1.1326	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0198	0.0198	5.0000e-005	0.0000	0.0211

**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	0.1287					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0030					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.4000e-004	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0198	0.0198	5.0000e-005	0.0000	0.0211
<b>Total</b>	<b>1.1326</b>	<b>9.0000e-005</b>	<b>0.0102</b>	<b>0.0000</b>		<b>4.0000e-005</b>	<b>4.0000e-005</b>		<b>4.0000e-005</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.0198</b>	<b>0.0198</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>0.0211</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, Annual

**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	0.1287					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0030					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.4000e-004	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.0198	0.0198	5.0000e-005	0.0000	0.0211
<b>Total</b>	<b>1.1326</b>	<b>9.0000e-005</b>	<b>0.0102</b>	<b>0.0000</b>		<b>4.0000e-005</b>	<b>4.0000e-005</b>		<b>4.0000e-005</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.0198</b>	<b>0.0198</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>0.0211</b>

**7.0 Water Detail****7.1 Mitigation Measures Water**

## Mapes &amp; Sherman - South Coast AQMD Air District, Annual

**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	168.5941	2.1042	0.0509	236.3676
Unmitigated	168.5941	2.1042	0.0509	236.3676

**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
Unrefrigerated Warehouse-No Rail	64.1904 / 0	168.5941	2.1042	0.0509	236.3676
<b>Total</b>		<b>168.5941</b>	<b>2.1042</b>	<b>0.0509</b>	<b>236.3676</b>

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
Unrefrigerated Warehouse-No Rail	64.1904 / 0	168.5941	2.1042	0.0509	236.3676
Total		168.5941	2.1042	0.0509	236.3676

8.0 Waste Detail

8.1 Mitigation Measures Waste

## Mapes &amp; Sherman - South Coast AQMD Air District, Annual

**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	52.9664	3.1302	0.0000	131.2221
Unmitigated	52.9664	3.1302	0.0000	131.2221

**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
Unrefrigerated Warehouse-No Rail	260.93	52.9664	3.1302	0.0000	131.2221
<b>Total</b>		<b>52.9664</b>	<b>3.1302</b>	<b>0.0000</b>	<b>131.2221</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, Annual

**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
Unrefrigerated Warehouse-No Rail	260.93	52.9664	3.1302	0.0000	131.2221
<b>Total</b>		<b>52.9664</b>	<b>3.1302</b>	<b>0.0000</b>	<b>131.2221</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment****Fire Pumps and Emergency Generators**

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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Mapes & Sherman - South Coast AQMD Air District, Annual

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

## **11.0 Vegetation**

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## Mapes &amp; Sherman - South Coast AQMD Air District, Summer

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

**Mapes & Sherman**  
**South Coast AQMD Air District, Summer**

**1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	277.58	1000sqft	7.98	277,578.00	0
Parking Lot	377.00	Space	2.02	0.00	0
Other Asphalt Surfaces	145.00	1000sqft	3.33	0.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	31
<b>Climate Zone</b>	11			<b>Operational Year</b>	2025
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	390.98	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

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

Project Characteristics - Consistent with the Checklist's model.

Land Use - Consistent with the Checklist's model.

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

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

Grading - Consistent with the Checklist's model.

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

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

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

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

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

## Mapes &amp; Sherman - South Coast AQMD Air District, Summer

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

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

Vehicle Trips -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	12.00
tblConstructionPhase	NumDays	300.00	173.00
tblConstructionPhase	NumDays	30.00	17.00
tblConstructionPhase	NumDays	20.00	12.00
tblConstructionPhase	NumDays	10.00	6.00
tblConstructionPhase	PhaseEndDate	3/17/2025	8/5/2024
tblConstructionPhase	PhaseEndDate	1/20/2025	7/2/2024
tblConstructionPhase	PhaseEndDate	11/27/2023	11/2/2023
tblConstructionPhase	PhaseEndDate	2/17/2025	7/18/2024
tblConstructionPhase	PhaseEndDate	10/16/2023	10/10/2023
tblConstructionPhase	PhaseStartDate	2/18/2025	7/19/2024
tblConstructionPhase	PhaseStartDate	11/28/2023	11/3/2023
tblConstructionPhase	PhaseStartDate	10/17/2023	10/11/2023
tblConstructionPhase	PhaseStartDate	1/21/2025	7/3/2024
tblGrading	AcresOfGrading	51.00	120.00
tblGrading	AcresOfGrading	9.00	35.00
tblGrading	MaterialImported	0.00	10,100.00
tblLandUse	LandUseSquareFeet	277,580.00	277,578.00
tblLandUse	LandUseSquareFeet	150,800.00	0.00
tblLandUse	LandUseSquareFeet	145,000.00	0.00
tblLandUse	LotAcreage	6.37	7.98
tblLandUse	LotAcreage	3.39	2.02
tblOffRoadEquipment	HorsePower	78.00	37.00
tblOffRoadEquipment	HorsePower	231.00	367.00
tblOffRoadEquipment	HorsePower	158.00	36.00

## Mapes &amp; Sherman - South Coast AQMD Air District, Summer

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

tblOffRoadEquipment	HorsePower	89.00	82.00
tblOffRoadEquipment	HorsePower	84.00	14.00
tblOffRoadEquipment	HorsePower	187.00	148.00
tblOffRoadEquipment	HorsePower	130.00	81.00
tblOffRoadEquipment	HorsePower	132.00	89.00
tblOffRoadEquipment	HorsePower	80.00	36.00
tblOffRoadEquipment	HorsePower	247.00	367.00
tblOffRoadEquipment	HorsePower	247.00	367.00
tblOffRoadEquipment	HorsePower	367.00	423.00
tblOffRoadEquipment	HorsePower	97.00	87.00
tblOffRoadEquipment	HorsePower	97.00	87.00
tblOffRoadEquipment	HorsePower	97.00	87.00
tblOffRoadEquipment	LoadFactor	0.37	0.43
tblOffRoadEquipment	LoadFactor	0.37	0.43
tblOffRoadEquipment	LoadFactor	0.37	0.43
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	HaulingTripNumber	1,263.00	42.00
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	3.00
tblTripsAndVMT	VendorTripNumber	0.00	7.00
tblTripsAndVMT	VendorTripNumber	45.00	37.00
tblTripsAndVMT	WorkerTripLength	14.70	18.50
tblTripsAndVMT	WorkerTripLength	14.70	18.50

Mapes & Sherman - South Coast AQMD Air District, Summer

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

tbITripsAndVMT	WorkerTripLength	14.70	18.50
tbITripsAndVMT	WorkerTripLength	14.70	18.50
tbITripsAndVMT	WorkerTripLength	14.70	18.50

2.0 Emissions Summary

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## Mapes &amp; Sherman - South Coast AQMD Air District, 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					
2023	4.1703	40.8352	38.7594	0.0679	24.5340	1.8835	26.4176	10.6739	1.7329	12.4068	0.0000	6,625.418 5	6,625.418 5	1.9692	0.1823	6,692.103 1
2024	214.7281	15.6754	21.3604	0.0506	1.9953	0.6304	2.6257	0.5370	0.5868	1.1238	0.0000	4,987.879 3	4,987.879 3	0.8194	0.1781	5,061.436 9
<b>Maximum</b>	<b>214.7281</b>	<b>40.8352</b>	<b>38.7594</b>	<b>0.0679</b>	<b>24.5340</b>	<b>1.8835</b>	<b>26.4176</b>	<b>10.6739</b>	<b>1.7329</b>	<b>12.4068</b>	<b>0.0000</b>	<b>6,625.418 5</b>	<b>6,625.418 5</b>	<b>1.9692</b>	<b>0.1823</b>	<b>6,692.103 1</b>

**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					
2023	4.1703	40.8352	38.7594	0.0679	24.5340	1.8835	26.4176	10.6739	1.7329	12.4068	0.0000	6,625.418 4	6,625.418 4	1.9692	0.1823	6,692.103 1
2024	214.7281	15.6754	21.3604	0.0506	1.9953	0.6304	2.6257	0.5370	0.5868	1.1238	0.0000	4,987.879 3	4,987.879 3	0.8194	0.1781	5,061.436 9
<b>Maximum</b>	<b>214.7281</b>	<b>40.8352</b>	<b>38.7594</b>	<b>0.0679</b>	<b>24.5340</b>	<b>1.8835</b>	<b>26.4176</b>	<b>10.6739</b>	<b>1.7329</b>	<b>12.4068</b>	<b>0.0000</b>	<b>6,625.418 4</b>	<b>6,625.418 4</b>	<b>1.9692</b>	<b>0.1823</b>	<b>6,692.103 1</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, Summer

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

[illegible]

## Mapes &amp; Sherman - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.2085	7.4000e-004	0.0814	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1750	0.1750	4.6000e-004		0.1864
Energy	7.0500e-003	0.0641	0.0539	3.8000e-004		4.8700e-003	4.8700e-003		4.8700e-003	4.8700e-003		76.9435	76.9435	1.4700e-003	1.4100e-003	77.4007
Mobile	1.5648	1.7435	16.8912	0.0401	4.3616	0.0278	4.3894	1.1623	0.0258	1.1881		4,084.3699	4,084.3699	0.2359	0.1605	4,138.1076
<b>Total</b>	<b>7.7804</b>	<b>1.8083</b>	<b>17.0265</b>	<b>0.0405</b>	<b>4.3616</b>	<b>0.0329</b>	<b>4.3946</b>	<b>1.1623</b>	<b>0.0310</b>	<b>1.1933</b>		<b>4,161.4884</b>	<b>4,161.4884</b>	<b>0.2378</b>	<b>0.1620</b>	<b>4,215.6947</b>

**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	6.2085	7.4000e-004	0.0814	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1750	0.1750	4.6000e-004		0.1864
Energy	7.0500e-003	0.0641	0.0539	3.8000e-004		4.8700e-003	4.8700e-003		4.8700e-003	4.8700e-003		76.9435	76.9435	1.4700e-003	1.4100e-003	77.4007
Mobile	1.5648	1.7435	16.8912	0.0401	4.3616	0.0278	4.3894	1.1623	0.0258	1.1881		4,084.3699	4,084.3699	0.2359	0.1605	4,138.1076
<b>Total</b>	<b>7.7804</b>	<b>1.8083</b>	<b>17.0265</b>	<b>0.0405</b>	<b>4.3616</b>	<b>0.0329</b>	<b>4.3946</b>	<b>1.1623</b>	<b>0.0310</b>	<b>1.1933</b>		<b>4,161.4884</b>	<b>4,161.4884</b>	<b>0.2378</b>	<b>0.1620</b>	<b>4,215.6947</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, 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
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	Site Preparation	Site Preparation	10/3/2023	10/10/2023	5	6	
2	Grading	Grading	10/11/2023	11/2/2023	5	17	
3	Building Construction	Building Construction	11/3/2023	7/2/2024	5	173	
4	Paving	Paving	7/3/2024	7/18/2024	5	12	
5	Architectural Coating	Architectural Coating	7/19/2024	8/5/2024	5	12	

**Acres of Grading (Site Preparation Phase): 35****Acres of Grading (Grading Phase): 120****Acres of Paving: 5.35****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 416,367; Non-Residential Outdoor: 138,789; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	8.00	37	0.48
Building Construction	Cranes	1	8.00	367	0.29
Grading	Excavators	2	8.00	36	0.38
Building Construction	Forklifts	3	8.00	82	0.20
Building Construction	Generator Sets	1	8.00	14	0.74
Grading	Graders	1	8.00	148	0.41

## Mapes &amp; Sherman - South Coast AQMD Air District, Summer

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

Paving	Pavers	2	8.00	81	0.42
Paving	Paving Equipment	2	8.00	89	0.36
Paving	Rollers	2	8.00	36	0.38
Grading	Rubber Tired Dozers	1	8.00	367	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	367	0.40
Grading	Scrapers	2	8.00	423	0.48
Building Construction	Tractors/Loaders/Backhoes	3	8.00	87	0.43
Grading	Tractors/Loaders/Backhoes	2	8.00	87	0.43
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	87	0.43
Building Construction	Welders	1	8.00	46	0.45

**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
Site Preparation	7	18.00	3.00	0.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	7.00	42.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	117.00	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	23.00	0.00	0.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

## Mapes &amp; Sherman - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.2 Site Preparation - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					24.2525	0.0000	24.2525	10.5987	0.0000	10.5987			0.0000			0.0000
Off-Road	4.0999	40.6440	37.9350	0.0514		1.8812	1.8812		1.7307	1.7307		4,981.578 0	4,981.578 0	1.6111		5,021.856 5
<b>Total</b>	<b>4.0999</b>	<b>40.6440</b>	<b>37.9350</b>	<b>0.0514</b>	<b>24.2525</b>	<b>1.8812</b>	<b>26.1337</b>	<b>10.5987</b>	<b>1.7307</b>	<b>12.3294</b>		<b>4,981.578 0</b>	<b>4,981.578 0</b>	<b>1.6111</b>		<b>5,021.856 5</b>

**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	3.9500e-003	0.1447	0.0500	7.9000e-004	0.0284	9.3000e-004	0.0293	8.1600e-003	8.9000e-004	9.0500e-003		84.6269	84.6269	2.8400e-003	0.0122	88.3388
Worker	0.0664	0.0465	0.7744	2.2100e-003	0.2532	1.4000e-003	0.2546	0.0671	1.2900e-003	0.0684		223.2798	223.2798	4.9300e-003	4.8600e-003	224.8503
<b>Total</b>	<b>0.0703</b>	<b>0.1912</b>	<b>0.8244</b>	<b>3.0000e-003</b>	<b>0.2815</b>	<b>2.3300e-003</b>	<b>0.2839</b>	<b>0.0753</b>	<b>2.1800e-003</b>	<b>0.0775</b>		<b>307.9068</b>	<b>307.9068</b>	<b>7.7700e-003</b>	<b>0.0171</b>	<b>313.1891</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.2 Site Preparation - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					24.2525	0.0000	24.2525	10.5987	0.0000	10.5987			0.0000			0.0000
Off-Road	4.0999	40.6440	37.9350	0.0514		1.8812	1.8812		1.7307	1.7307	0.0000	4,981.578 0	4,981.578 0	1.6111		5,021.856 5
<b>Total</b>	<b>4.0999</b>	<b>40.6440</b>	<b>37.9350</b>	<b>0.0514</b>	<b>24.2525</b>	<b>1.8812</b>	<b>26.1337</b>	<b>10.5987</b>	<b>1.7307</b>	<b>12.3294</b>	<b>0.0000</b>	<b>4,981.578 0</b>	<b>4,981.578 0</b>	<b>1.6111</b>		<b>5,021.856 5</b>

**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	3.9500e-003	0.1447	0.0500	7.9000e-004	0.0284	9.3000e-004	0.0293	8.1600e-003	8.9000e-004	9.0500e-003		84.6269	84.6269	2.8400e-003	0.0122	88.3388
Worker	0.0664	0.0465	0.7744	2.2100e-003	0.2532	1.4000e-003	0.2546	0.0671	1.2900e-003	0.0684		223.2798	223.2798	4.9300e-003	4.8600e-003	224.8503
<b>Total</b>	<b>0.0703</b>	<b>0.1912</b>	<b>0.8244</b>	<b>3.0000e-003</b>	<b>0.2815</b>	<b>2.3300e-003</b>	<b>0.2839</b>	<b>0.0753</b>	<b>2.1800e-003</b>	<b>0.0775</b>		<b>307.9068</b>	<b>307.9068</b>	<b>7.7700e-003</b>	<b>0.0171</b>	<b>313.1891</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.3 Grading - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					13.5752	0.0000	13.5752	4.1287	0.0000	4.1287			0.0000			0.0000
Off-Road	3.9199	39.2409	34.0778	0.0622		1.7048	1.7048		1.5684	1.5684		6,024.600 2	6,024.600 2	1.9485		6,073.312 2
<b>Total</b>	<b>3.9199</b>	<b>39.2409</b>	<b>34.0778</b>	<b>0.0622</b>	<b>13.5752</b>	<b>1.7048</b>	<b>15.2799</b>	<b>4.1287</b>	<b>1.5684</b>	<b>5.6971</b>		<b>6,024.600 2</b>	<b>6,024.600 2</b>	<b>1.9485</b>		<b>6,073.312 2</b>

**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	5.3200e-003	0.2976	0.0837	1.4100e-003	0.0432	2.2500e-003	0.0455	0.0119	2.1600e-003	0.0140		155.2667	155.2667	8.6300e-003	0.0247	162.8334
Vendor	9.2200e-003	0.3377	0.1168	1.8300e-003	0.0662	2.1700e-003	0.0683	0.0190	2.0700e-003	0.0211		197.4629	197.4629	6.6300e-003	0.0285	206.1239
Worker	0.0738	0.0517	0.8604	2.4500e-003	0.2813	1.5600e-003	0.2829	0.0746	1.4300e-003	0.0760		248.0887	248.0887	5.4800e-003	5.4000e-003	249.8337
<b>Total</b>	<b>0.0883</b>	<b>0.6870</b>	<b>1.0609</b>	<b>5.6900e-003</b>	<b>0.3907</b>	<b>5.9800e-003</b>	<b>0.3967</b>	<b>0.1055</b>	<b>5.6600e-003</b>	<b>0.1111</b>		<b>600.8182</b>	<b>600.8182</b>	<b>0.0207</b>	<b>0.0586</b>	<b>618.7910</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.3 Grading - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					13.5752	0.0000	13.5752	4.1287	0.0000	4.1287			0.0000			0.0000
Off-Road	3.9199	39.2409	34.0778	0.0622		1.7048	1.7048		1.5684	1.5684	0.0000	6,024.600 2	6,024.600 2	1.9485		6,073.312 2
<b>Total</b>	<b>3.9199</b>	<b>39.2409</b>	<b>34.0778</b>	<b>0.0622</b>	<b>13.5752</b>	<b>1.7048</b>	<b>15.2799</b>	<b>4.1287</b>	<b>1.5684</b>	<b>5.6971</b>	<b>0.0000</b>	<b>6,024.600 2</b>	<b>6,024.600 2</b>	<b>1.9485</b>		<b>6,073.312 2</b>

**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	5.3200e-003	0.2976	0.0837	1.4100e-003	0.0432	2.2500e-003	0.0455	0.0119	2.1600e-003	0.0140		155.2667	155.2667	8.6300e-003	0.0247	162.8334
Vendor	9.2200e-003	0.3377	0.1168	1.8300e-003	0.0662	2.1700e-003	0.0683	0.0190	2.0700e-003	0.0211		197.4629	197.4629	6.6300e-003	0.0285	206.1239
Worker	0.0738	0.0517	0.8604	2.4500e-003	0.2813	1.5600e-003	0.2829	0.0746	1.4300e-003	0.0760		248.0887	248.0887	5.4800e-003	5.4000e-003	249.8337
<b>Total</b>	<b>0.0883</b>	<b>0.6870</b>	<b>1.0609</b>	<b>5.6900e-003</b>	<b>0.3907</b>	<b>5.9800e-003</b>	<b>0.3967</b>	<b>0.1055</b>	<b>5.6600e-003</b>	<b>0.1111</b>		<b>600.8182</b>	<b>600.8182</b>	<b>0.0207</b>	<b>0.0586</b>	<b>618.7910</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.4 Building Construction - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5677	14.3817	16.2336	0.0271		0.6807	0.6807		0.6334	0.6334		2,550.0718	2,550.0718	0.7567		2,568.9904
<b>Total</b>	<b>1.5677</b>	<b>14.3817</b>	<b>16.2336</b>	<b>0.0271</b>		<b>0.6807</b>	<b>0.6807</b>		<b>0.6334</b>	<b>0.6334</b>		<b>2,550.0718</b>	<b>2,550.0718</b>	<b>0.7567</b>		<b>2,568.9904</b>

**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	0.0487	1.7849	0.6172	9.6900e-003	0.3498	0.0115	0.3612	0.1007	0.0110	0.1116		1,043.7322	1,043.7322	0.0350	0.1507	1,089.5121
Worker	0.4315	0.3022	5.0334	0.0144	1.6456	9.1000e-003	1.6547	0.4364	8.3800e-003	0.4448		1,451.3188	1,451.3188	0.0320	0.0316	1,461.5270
<b>Total</b>	<b>0.4802</b>	<b>2.0872</b>	<b>5.6506</b>	<b>0.0241</b>	<b>1.9953</b>	<b>0.0206</b>	<b>2.0159</b>	<b>0.5370</b>	<b>0.0193</b>	<b>0.5564</b>		<b>2,495.0510</b>	<b>2,495.0510</b>	<b>0.0671</b>	<b>0.1823</b>	<b>2,551.0391</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.4 Building Construction - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5677	14.3817	16.2336	0.0271		0.6807	0.6807		0.6334	0.6334	0.0000	2,550.0718	2,550.0718	0.7567		2,568.9904
<b>Total</b>	<b>1.5677</b>	<b>14.3817</b>	<b>16.2336</b>	<b>0.0271</b>		<b>0.6807</b>	<b>0.6807</b>		<b>0.6334</b>	<b>0.6334</b>	<b>0.0000</b>	<b>2,550.0718</b>	<b>2,550.0718</b>	<b>0.7567</b>		<b>2,568.9904</b>

**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	0.0487	1.7849	0.6172	9.6900e-003	0.3498	0.0115	0.3612	0.1007	0.0110	0.1116		1,043.7322	1,043.7322	0.0350	0.1507	1,089.5121
Worker	0.4315	0.3022	5.0334	0.0144	1.6456	9.1000e-003	1.6547	0.4364	8.3800e-003	0.4448		1,451.3188	1,451.3188	0.0320	0.0316	1,461.5270
<b>Total</b>	<b>0.4802</b>	<b>2.0872</b>	<b>5.6506</b>	<b>0.0241</b>	<b>1.9953</b>	<b>0.0206</b>	<b>2.0159</b>	<b>0.5370</b>	<b>0.0193</b>	<b>0.5564</b>		<b>2,495.0510</b>	<b>2,495.0510</b>	<b>0.0671</b>	<b>0.1823</b>	<b>2,551.0391</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.4 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	1.4908	13.6112	16.0707	0.0271		0.6102	0.6102		0.5678	0.5678		2,550.2395	2,550.2395	0.7553		2,569.1229
<b>Total</b>	<b>1.4908</b>	<b>13.6112</b>	<b>16.0707</b>	<b>0.0271</b>		<b>0.6102</b>	<b>0.6102</b>		<b>0.5678</b>	<b>0.5678</b>		<b>2,550.2395</b>	<b>2,550.2395</b>	<b>0.7553</b>		<b>2,569.1229</b>

**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	0.0474	1.7946	0.6062	9.5400e-003	0.3498	0.0115	0.3612	0.1007	0.0110	0.1116		1,028.7356	1,028.7356	0.0351	0.1487	1,073.9377
Worker	0.4031	0.2696	4.6835	0.0139	1.6456	8.7000e-003	1.6543	0.4364	8.0100e-003	0.4444		1,408.9042	1,408.9042	0.0290	0.0294	1,418.3762
<b>Total</b>	<b>0.4505</b>	<b>2.0642</b>	<b>5.2897</b>	<b>0.0235</b>	<b>1.9953</b>	<b>0.0202</b>	<b>2.0155</b>	<b>0.5370</b>	<b>0.0190</b>	<b>0.5560</b>		<b>2,437.6398</b>	<b>2,437.6398</b>	<b>0.0640</b>	<b>0.1781</b>	<b>2,492.3140</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.4 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	1.4908	13.6112	16.0707	0.0271		0.6102	0.6102		0.5678	0.5678	0.0000	2,550.2395	2,550.2395	0.7553		2,569.1229
<b>Total</b>	<b>1.4908</b>	<b>13.6112</b>	<b>16.0707</b>	<b>0.0271</b>		<b>0.6102</b>	<b>0.6102</b>		<b>0.5678</b>	<b>0.5678</b>	<b>0.0000</b>	<b>2,550.2395</b>	<b>2,550.2395</b>	<b>0.7553</b>		<b>2,569.1229</b>

**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	0.0474	1.7946	0.6062	9.5400e-003	0.3498	0.0115	0.3612	0.1007	0.0110	0.1116		1,028.7356	1,028.7356	0.0351	0.1487	1,073.9377
Worker	0.4031	0.2696	4.6835	0.0139	1.6456	8.7000e-003	1.6543	0.4364	8.0100e-003	0.4444		1,408.9042	1,408.9042	0.0290	0.0294	1,418.3762
<b>Total</b>	<b>0.4505</b>	<b>2.0642</b>	<b>5.2897</b>	<b>0.0235</b>	<b>1.9953</b>	<b>0.0202</b>	<b>2.0155</b>	<b>0.5370</b>	<b>0.0190</b>	<b>0.5560</b>		<b>2,437.6398</b>	<b>2,437.6398</b>	<b>0.0640</b>	<b>0.1781</b>	<b>2,492.3140</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.5 Paving - 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	1.0004	8.7992	10.1983	0.0140		0.5011	0.5011		0.4610	0.4610		1,352.8518	1,352.8518	0.4375		1,363.7903
Paving	1.1681					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.1685</b>	<b>8.7992</b>	<b>10.1983</b>	<b>0.0140</b>		<b>0.5011</b>	<b>0.5011</b>		<b>0.4610</b>	<b>0.4610</b>		<b>1,352.8518</b>	<b>1,352.8518</b>	<b>0.4375</b>		<b>1,363.7903</b>

**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	0.0517	0.0346	0.6005	1.7900e-003	0.2110	1.1200e-003	0.2121	0.0559	1.0300e-003	0.0570		180.6288	180.6288	3.7100e-003	3.7600e-003	181.8431
<b>Total</b>	<b>0.0517</b>	<b>0.0346</b>	<b>0.6005</b>	<b>1.7900e-003</b>	<b>0.2110</b>	<b>1.1200e-003</b>	<b>0.2121</b>	<b>0.0559</b>	<b>1.0300e-003</b>	<b>0.0570</b>		<b>180.6288</b>	<b>180.6288</b>	<b>3.7100e-003</b>	<b>3.7600e-003</b>	<b>181.8431</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.5 Paving - 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	1.0004	8.7992	10.1983	0.0140		0.5011	0.5011		0.4610	0.4610	0.0000	1,352.8518	1,352.8518	0.4375		1,363.7903
Paving	1.1681					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.1685</b>	<b>8.7992</b>	<b>10.1983</b>	<b>0.0140</b>		<b>0.5011</b>	<b>0.5011</b>		<b>0.4610</b>	<b>0.4610</b>	<b>0.0000</b>	<b>1,352.8518</b>	<b>1,352.8518</b>	<b>0.4375</b>		<b>1,363.7903</b>

**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	0.0517	0.0346	0.6005	1.7900e-003	0.2110	1.1200e-003	0.2121	0.0559	1.0300e-003	0.0570		180.6288	180.6288	3.7100e-003	3.7600e-003	181.8431
<b>Total</b>	<b>0.0517</b>	<b>0.0346</b>	<b>0.6005</b>	<b>1.7900e-003</b>	<b>0.2110</b>	<b>1.1200e-003</b>	<b>0.2121</b>	<b>0.0559</b>	<b>1.0300e-003</b>	<b>0.0570</b>		<b>180.6288</b>	<b>180.6288</b>	<b>3.7100e-003</b>	<b>3.7600e-003</b>	<b>181.8431</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.6 Architectural Coating - 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					
Archit. Coating	214.4290					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2199	1.2103	1.5286	2.1900e-003		0.0423	0.0423		0.0423	0.0423		178.0099	178.0099	0.0197		178.5032
<b>Total</b>	<b>214.6489</b>	<b>1.2103</b>	<b>1.5286</b>	<b>2.1900e-003</b>		<b>0.0423</b>	<b>0.0423</b>		<b>0.0423</b>	<b>0.0423</b>		<b>178.0099</b>	<b>178.0099</b>	<b>0.0197</b>		<b>178.5032</b>

**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	0.0792	0.0530	0.9207	2.7400e-003	0.3235	1.7100e-003	0.3252	0.0858	1.5800e-003	0.0874		276.9641	276.9641	5.7000e-003	5.7700e-003	278.8261
<b>Total</b>	<b>0.0792</b>	<b>0.0530</b>	<b>0.9207</b>	<b>2.7400e-003</b>	<b>0.3235</b>	<b>1.7100e-003</b>	<b>0.3252</b>	<b>0.0858</b>	<b>1.5800e-003</b>	<b>0.0874</b>		<b>276.9641</b>	<b>276.9641</b>	<b>5.7000e-003</b>	<b>5.7700e-003</b>	<b>278.8261</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.6 Architectural Coating - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	214.4290					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2199	1.2103	1.5286	2.1900e-003		0.0423	0.0423		0.0423	0.0423	0.0000	178.0099	178.0099	0.0197		178.5032
<b>Total</b>	<b>214.6489</b>	<b>1.2103</b>	<b>1.5286</b>	<b>2.1900e-003</b>		<b>0.0423</b>	<b>0.0423</b>		<b>0.0423</b>	<b>0.0423</b>	<b>0.0000</b>	<b>178.0099</b>	<b>178.0099</b>	<b>0.0197</b>		<b>178.5032</b>

**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	0.0792	0.0530	0.9207	2.7400e-003	0.3235	1.7100e-003	0.3252	0.0858	1.5800e-003	0.0874		276.9641	276.9641	5.7000e-003	5.7700e-003	278.8261
<b>Total</b>	<b>0.0792</b>	<b>0.0530</b>	<b>0.9207</b>	<b>2.7400e-003</b>	<b>0.3235</b>	<b>1.7100e-003</b>	<b>0.3252</b>	<b>0.0858</b>	<b>1.5800e-003</b>	<b>0.0874</b>		<b>276.9641</b>	<b>276.9641</b>	<b>5.7000e-003</b>	<b>5.7700e-003</b>	<b>278.8261</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

	ROG	NOx	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	1.5648	1.7435	16.8912	0.0401	4.3616	0.0278	4.3894	1.1623	0.0258	1.1881		4,084.369 9	4,084.369 9	0.2359	0.1605	4,138.107 6
Unmitigated	1.5648	1.7435	16.8912	0.0401	4.3616	0.0278	4.3894	1.1623	0.0258	1.1881		4,084.369 9	4,084.369 9	0.2359	0.1605	4,138.107 6

**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		
Unrefrigerated Warehouse-No Rail	482.99	482.99	482.99	2,069,955	2,069,955
Total	482.99	482.99	482.99	2,069,955	2,069,955

**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
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

## Mapes &amp; Sherman - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
Parking Lot	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
Unrefrigerated Warehouse-No Rail	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657

**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	7.0500e-003	0.0641	0.0539	3.8000e-004		4.8700e-003	4.8700e-003		4.8700e-003	4.8700e-003		76.9435	76.9435	1.4700e-003	1.4100e-003	77.4007
NaturalGas Unmitigated	7.0500e-003	0.0641	0.0539	3.8000e-004		4.8700e-003	4.8700e-003		4.8700e-003	4.8700e-003		76.9435	76.9435	1.4700e-003	1.4100e-003	77.4007

## Mapes &amp; Sherman - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****5.2 Energy by Land Use - NaturalGas****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
Unrefrigerated Warehouse-No Rail	654.019	7.0500e-003	0.0641	0.0539	3.8000e-004		4.8700e-003	4.8700e-003		4.8700e-003	4.8700e-003		76.9435	76.9435	1.4700e-003	1.4100e-003	77.4007
<b>Total</b>		<b>7.0500e-003</b>	<b>0.0641</b>	<b>0.0539</b>	<b>3.8000e-004</b>		<b>4.8700e-003</b>	<b>4.8700e-003</b>		<b>4.8700e-003</b>	<b>4.8700e-003</b>		<b>76.9435</b>	<b>76.9435</b>	<b>1.4700e-003</b>	<b>1.4100e-003</b>	<b>77.4007</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****5.2 Energy by Land Use - NaturalGas****Mitigated**

	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
Unrefrigerated Warehouse-No Rail	0.654019	7.0500e-003	0.0641	0.0539	3.8000e-004		4.8700e-003	4.8700e-003		4.8700e-003	4.8700e-003		76.9435	76.9435	1.4700e-003	1.4100e-003	77.4007
<b>Total</b>		<b>7.0500e-003</b>	<b>0.0641</b>	<b>0.0539</b>	<b>3.8000e-004</b>		<b>4.8700e-003</b>	<b>4.8700e-003</b>		<b>4.8700e-003</b>	<b>4.8700e-003</b>		<b>76.9435</b>	<b>76.9435</b>	<b>1.4700e-003</b>	<b>1.4100e-003</b>	<b>77.4007</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

## Mapes &amp; Sherman - South Coast AQMD Air District, 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	6.2085	7.4000e-004	0.0814	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1750	0.1750	4.6000e-004		0.1864
Unmitigated	6.2085	7.4000e-004	0.0814	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1750	0.1750	4.6000e-004		0.1864

**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	0.7050					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.4960					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.5000e-003	7.4000e-004	0.0814	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1750	0.1750	4.6000e-004		0.1864
<b>Total</b>	<b>6.2085</b>	<b>7.4000e-004</b>	<b>0.0814</b>	<b>1.0000e-005</b>		<b>2.9000e-004</b>	<b>2.9000e-004</b>		<b>2.9000e-004</b>	<b>2.9000e-004</b>		<b>0.1750</b>	<b>0.1750</b>	<b>4.6000e-004</b>		<b>0.1864</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****6.2 Area by SubCategory****Mitigated**

	ROG	NOx	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	0.7050					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.4960					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.5000e-003	7.4000e-004	0.0814	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1750	0.1750	4.6000e-004		0.1864
<b>Total</b>	<b>6.2085</b>	<b>7.4000e-004</b>	<b>0.0814</b>	<b>1.0000e-005</b>		<b>2.9000e-004</b>	<b>2.9000e-004</b>		<b>2.9000e-004</b>	<b>2.9000e-004</b>		<b>0.1750</b>	<b>0.1750</b>	<b>4.6000e-004</b>		<b>0.1864</b>

**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

8.0 Waste Detail

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8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

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Fire Pumps and Emergency Generators

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

Boilers

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

Equipment Type	Number
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11.0 Vegetation

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## Mapes &amp; Sherman - South Coast AQMD Air District, Winter

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

**Mapes & Sherman**  
**South Coast AQMD Air District, Winter**

**1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	277.58	1000sqft	7.98	277,578.00	0
Parking Lot	377.00	Space	2.02	0.00	0
Other Asphalt Surfaces	145.00	1000sqft	3.33	0.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	31
<b>Climate Zone</b>	11			<b>Operational Year</b>	2025
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	390.98	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

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

Project Characteristics - Consistent with the Checklist's model.

Land Use - Consistent with the Checklist's model.

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

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

Grading - Consistent with the Checklist's model.

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

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

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

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

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

## Mapes &amp; Sherman - South Coast AQMD Air District, Winter

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

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

Vehicle Trips -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	12.00
tblConstructionPhase	NumDays	300.00	173.00
tblConstructionPhase	NumDays	30.00	17.00
tblConstructionPhase	NumDays	20.00	12.00
tblConstructionPhase	NumDays	10.00	6.00
tblConstructionPhase	PhaseEndDate	3/17/2025	8/5/2024
tblConstructionPhase	PhaseEndDate	1/20/2025	7/2/2024
tblConstructionPhase	PhaseEndDate	11/27/2023	11/2/2023
tblConstructionPhase	PhaseEndDate	2/17/2025	7/18/2024
tblConstructionPhase	PhaseEndDate	10/16/2023	10/10/2023
tblConstructionPhase	PhaseStartDate	2/18/2025	7/19/2024
tblConstructionPhase	PhaseStartDate	11/28/2023	11/3/2023
tblConstructionPhase	PhaseStartDate	10/17/2023	10/11/2023
tblConstructionPhase	PhaseStartDate	1/21/2025	7/3/2024
tblGrading	AcresOfGrading	51.00	120.00
tblGrading	AcresOfGrading	9.00	35.00
tblGrading	MaterialImported	0.00	10,100.00
tblLandUse	LandUseSquareFeet	277,580.00	277,578.00
tblLandUse	LandUseSquareFeet	150,800.00	0.00
tblLandUse	LandUseSquareFeet	145,000.00	0.00
tblLandUse	LotAcreage	6.37	7.98
tblLandUse	LotAcreage	3.39	2.02
tblOffRoadEquipment	HorsePower	78.00	37.00
tblOffRoadEquipment	HorsePower	231.00	367.00
tblOffRoadEquipment	HorsePower	158.00	36.00

## Mapes &amp; Sherman - South Coast AQMD Air District, Winter

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

tblOffRoadEquipment	HorsePower	89.00	82.00
tblOffRoadEquipment	HorsePower	84.00	14.00
tblOffRoadEquipment	HorsePower	187.00	148.00
tblOffRoadEquipment	HorsePower	130.00	81.00
tblOffRoadEquipment	HorsePower	132.00	89.00
tblOffRoadEquipment	HorsePower	80.00	36.00
tblOffRoadEquipment	HorsePower	247.00	367.00
tblOffRoadEquipment	HorsePower	247.00	367.00
tblOffRoadEquipment	HorsePower	367.00	423.00
tblOffRoadEquipment	HorsePower	97.00	87.00
tblOffRoadEquipment	HorsePower	97.00	87.00
tblOffRoadEquipment	HorsePower	97.00	87.00
tblOffRoadEquipment	LoadFactor	0.37	0.43
tblOffRoadEquipment	LoadFactor	0.37	0.43
tblOffRoadEquipment	LoadFactor	0.37	0.43
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	HaulingTripNumber	1,263.00	42.00
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	3.00
tblTripsAndVMT	VendorTripNumber	0.00	7.00
tblTripsAndVMT	VendorTripNumber	45.00	37.00
tblTripsAndVMT	WorkerTripLength	14.70	18.50
tblTripsAndVMT	WorkerTripLength	14.70	18.50

Mapes & Sherman - South Coast AQMD Air District, Winter

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

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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## Mapes &amp; Sherman - South Coast AQMD Air District, 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					
2023	4.1747	40.8465	38.6815	0.0678	24.5340	1.8835	26.4176	10.6739	1.7329	12.4068	0.0000	6,611.398 <sub>9</sub>	6,611.398 <sub>9</sub>	1.9692	0.1845	6,678.206 <sub>2</sub>
2024	214.7338	15.7864	20.8981	0.0498	1.9953	0.6304	2.6257	0.5370	0.5869	1.1239	0.0000	4,907.228 <sub>6</sub>	4,907.228 <sub>6</sub>	0.8193	0.1802	4,981.401 <sub>3</sub>
<b>Maximum</b>	<b>214.7338</b>	<b>40.8465</b>	<b>38.6815</b>	<b>0.0678</b>	<b>24.5340</b>	<b>1.8835</b>	<b>26.4176</b>	<b>10.6739</b>	<b>1.7329</b>	<b>12.4068</b>	<b>0.0000</b>	<b>6,611.398<sub>9</sub></b>	<b>6,611.398<sub>9</sub></b>	<b>1.9692</b>	<b>0.1845</b>	<b>6,678.206<sub>2</sub></b>

**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					
2023	4.1747	40.8465	38.6815	0.0678	24.5340	1.8835	26.4176	10.6739	1.7329	12.4068	0.0000	6,611.398 <sub>9</sub>	6,611.398 <sub>9</sub>	1.9692	0.1845	6,678.206 <sub>2</sub>
2024	214.7338	15.7864	20.8981	0.0498	1.9953	0.6304	2.6257	0.5370	0.5869	1.1239	0.0000	4,907.228 <sub>6</sub>	4,907.228 <sub>6</sub>	0.8193	0.1802	4,981.401 <sub>3</sub>
<b>Maximum</b>	<b>214.7338</b>	<b>40.8465</b>	<b>38.6815</b>	<b>0.0678</b>	<b>24.5340</b>	<b>1.8835</b>	<b>26.4176</b>	<b>10.6739</b>	<b>1.7329</b>	<b>12.4068</b>	<b>0.0000</b>	<b>6,611.398<sub>9</sub></b>	<b>6,611.398<sub>9</sub></b>	<b>1.9692</b>	<b>0.1845</b>	<b>6,678.206<sub>2</sub></b>

Mapes & Sherman - South Coast AQMD Air District, Winter

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

[illegible]

## Mapes &amp; Sherman - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	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	6.2085	7.4000e-004	0.0814	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1750	0.1750	4.6000e-004		0.1864
Energy	7.0500e-003	0.0641	0.0539	3.8000e-004		4.8700e-003	4.8700e-003		4.8700e-003	4.8700e-003		76.9435	76.9435	1.4700e-003	1.4100e-003	77.4007
Mobile	1.5163	1.8727	16.2077	0.0382	4.3616	0.0278	4.3894	1.1623	0.0258	1.1882		3,895.3514	3,895.3514	0.2410	0.1666	3,951.0142
<b>Total</b>	<b>7.7319</b>	<b>1.9376</b>	<b>16.3430</b>	<b>0.0386</b>	<b>4.3616</b>	<b>0.0329</b>	<b>4.3946</b>	<b>1.1623</b>	<b>0.0310</b>	<b>1.1933</b>		<b>3,972.4698</b>	<b>3,972.4698</b>	<b>0.2429</b>	<b>0.1680</b>	<b>4,028.6013</b>

**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	6.2085	7.4000e-004	0.0814	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1750	0.1750	4.6000e-004		0.1864
Energy	7.0500e-003	0.0641	0.0539	3.8000e-004		4.8700e-003	4.8700e-003		4.8700e-003	4.8700e-003		76.9435	76.9435	1.4700e-003	1.4100e-003	77.4007
Mobile	1.5163	1.8727	16.2077	0.0382	4.3616	0.0278	4.3894	1.1623	0.0258	1.1882		3,895.3514	3,895.3514	0.2410	0.1666	3,951.0142
<b>Total</b>	<b>7.7319</b>	<b>1.9376</b>	<b>16.3430</b>	<b>0.0386</b>	<b>4.3616</b>	<b>0.0329</b>	<b>4.3946</b>	<b>1.1623</b>	<b>0.0310</b>	<b>1.1933</b>		<b>3,972.4698</b>	<b>3,972.4698</b>	<b>0.2429</b>	<b>0.1680</b>	<b>4,028.6013</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, 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
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	Site Preparation	Site Preparation	10/3/2023	10/10/2023	5	6	
2	Grading	Grading	10/11/2023	11/2/2023	5	17	
3	Building Construction	Building Construction	11/3/2023	7/2/2024	5	173	
4	Paving	Paving	7/3/2024	7/18/2024	5	12	
5	Architectural Coating	Architectural Coating	7/19/2024	8/5/2024	5	12	

**Acres of Grading (Site Preparation Phase): 35****Acres of Grading (Grading Phase): 120****Acres of Paving: 5.35****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 416,367; Non-Residential Outdoor: 138,789; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	8.00	37	0.48
Building Construction	Cranes	1	8.00	367	0.29
Grading	Excavators	2	8.00	36	0.38
Building Construction	Forklifts	3	8.00	82	0.20
Building Construction	Generator Sets	1	8.00	14	0.74
Grading	Graders	1	8.00	148	0.41

## Mapes &amp; Sherman - South Coast AQMD Air District, Winter

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

Paving	Pavers	2	8.00	81	0.42
Paving	Paving Equipment	2	8.00	89	0.36
Paving	Rollers	2	8.00	36	0.38
Grading	Rubber Tired Dozers	1	8.00	367	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	367	0.40
Grading	Scrapers	2	8.00	423	0.48
Building Construction	Tractors/Loaders/Backhoes	3	8.00	87	0.43
Grading	Tractors/Loaders/Backhoes	2	8.00	87	0.43
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	87	0.43
Building Construction	Welders	1	8.00	46	0.45

**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
Site Preparation	7	18.00	3.00	0.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	7.00	42.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	117.00	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	23.00	0.00	0.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

## Mapes &amp; Sherman - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.2 Site Preparation - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					24.2525	0.0000	24.2525	10.5987	0.0000	10.5987			0.0000			0.0000
Off-Road	4.0999	40.6440	37.9350	0.0514		1.8812	1.8812		1.7307	1.7307		4,981.578 0	4,981.578 0	1.6111		5,021.856 5
<b>Total</b>	<b>4.0999</b>	<b>40.6440</b>	<b>37.9350</b>	<b>0.0514</b>	<b>24.2525</b>	<b>1.8812</b>	<b>26.1337</b>	<b>10.5987</b>	<b>1.7307</b>	<b>12.3294</b>		<b>4,981.578 0</b>	<b>4,981.578 0</b>	<b>1.6111</b>		<b>5,021.856 5</b>

**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	3.8400e-003	0.1517	0.0514	7.9000e-004	0.0284	9.3000e-004	0.0293	8.1600e-003	8.9000e-004	9.0500e-003		84.7332	84.7332	2.8300e-003	0.0122	88.4523
Worker	0.0709	0.0509	0.6951	2.0800e-003	0.2532	1.4000e-003	0.2546	0.0671	1.2900e-003	0.0684		210.2817	210.2817	4.9300e-003	5.1500e-003	211.9402
<b>Total</b>	<b>0.0747</b>	<b>0.2025</b>	<b>0.7465</b>	<b>2.8700e-003</b>	<b>0.2815</b>	<b>2.3300e-003</b>	<b>0.2839</b>	<b>0.0753</b>	<b>2.1800e-003</b>	<b>0.0775</b>		<b>295.0149</b>	<b>295.0149</b>	<b>7.7600e-003</b>	<b>0.0174</b>	<b>300.3925</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.2 Site Preparation - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					24.2525	0.0000	24.2525	10.5987	0.0000	10.5987			0.0000			0.0000
Off-Road	4.0999	40.6440	37.9350	0.0514		1.8812	1.8812		1.7307	1.7307	0.0000	4,981.578 0	4,981.578 0	1.6111		5,021.856 5
<b>Total</b>	<b>4.0999</b>	<b>40.6440</b>	<b>37.9350</b>	<b>0.0514</b>	<b>24.2525</b>	<b>1.8812</b>	<b>26.1337</b>	<b>10.5987</b>	<b>1.7307</b>	<b>12.3294</b>	<b>0.0000</b>	<b>4,981.578 0</b>	<b>4,981.578 0</b>	<b>1.6111</b>		<b>5,021.856 5</b>

**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	3.8400e-003	0.1517	0.0514	7.9000e-004	0.0284	9.3000e-004	0.0293	8.1600e-003	8.9000e-004	9.0500e-003		84.7332	84.7332	2.8300e-003	0.0122	88.4523
Worker	0.0709	0.0509	0.6951	2.0800e-003	0.2532	1.4000e-003	0.2546	0.0671	1.2900e-003	0.0684		210.2817	210.2817	4.9300e-003	5.1500e-003	211.9402
<b>Total</b>	<b>0.0747</b>	<b>0.2025</b>	<b>0.7465</b>	<b>2.8700e-003</b>	<b>0.2815</b>	<b>2.3300e-003</b>	<b>0.2839</b>	<b>0.0753</b>	<b>2.1800e-003</b>	<b>0.0775</b>		<b>295.0149</b>	<b>295.0149</b>	<b>7.7600e-003</b>	<b>0.0174</b>	<b>300.3925</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.3 Grading - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					13.5752	0.0000	13.5752	4.1287	0.0000	4.1287			0.0000			0.0000
Off-Road	3.9199	39.2409	34.0778	0.0622		1.7048	1.7048		1.5684	1.5684		6,024.600 2	6,024.600 2	1.9485		6,073.312 2
<b>Total</b>	<b>3.9199</b>	<b>39.2409</b>	<b>34.0778</b>	<b>0.0622</b>	<b>13.5752</b>	<b>1.7048</b>	<b>15.2799</b>	<b>4.1287</b>	<b>1.5684</b>	<b>5.6971</b>		<b>6,024.600 2</b>	<b>6,024.600 2</b>	<b>1.9485</b>		<b>6,073.312 2</b>

**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	4.9700e-003	0.3118	0.0849	1.4100e-003	0.0432	2.2600e-003	0.0455	0.0119	2.1600e-003	0.0140		155.4416	155.4416	8.6100e-003	0.0247	163.0162
Vendor	8.9500e-003	0.3539	0.1199	1.8400e-003	0.0662	2.1700e-003	0.0684	0.0190	2.0800e-003	0.0211		197.7107	197.7107	6.6000e-003	0.0286	206.3887
Worker	0.0788	0.0565	0.7723	2.3100e-003	0.2813	1.5600e-003	0.2829	0.0746	1.4300e-003	0.0760		233.6463	233.6463	5.4800e-003	5.7200e-003	235.4891
<b>Total</b>	<b>0.0927</b>	<b>0.7222</b>	<b>0.9771</b>	<b>5.5600e-003</b>	<b>0.3907</b>	<b>5.9900e-003</b>	<b>0.3967</b>	<b>0.1055</b>	<b>5.6700e-003</b>	<b>0.1112</b>		<b>586.7987</b>	<b>586.7987</b>	<b>0.0207</b>	<b>0.0590</b>	<b>604.8940</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.3 Grading - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					13.5752	0.0000	13.5752	4.1287	0.0000	4.1287			0.0000			0.0000
Off-Road	3.9199	39.2409	34.0778	0.0622		1.7048	1.7048		1.5684	1.5684	0.0000	6,024.600 2	6,024.600 2	1.9485		6,073.312 2
<b>Total</b>	<b>3.9199</b>	<b>39.2409</b>	<b>34.0778</b>	<b>0.0622</b>	<b>13.5752</b>	<b>1.7048</b>	<b>15.2799</b>	<b>4.1287</b>	<b>1.5684</b>	<b>5.6971</b>	<b>0.0000</b>	<b>6,024.600 2</b>	<b>6,024.600 2</b>	<b>1.9485</b>		<b>6,073.312 2</b>

**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	4.9700e-003	0.3118	0.0849	1.4100e-003	0.0432	2.2600e-003	0.0455	0.0119	2.1600e-003	0.0140		155.4416	155.4416	8.6100e-003	0.0247	163.0162
Vendor	8.9500e-003	0.3539	0.1199	1.8400e-003	0.0662	2.1700e-003	0.0684	0.0190	2.0800e-003	0.0211		197.7107	197.7107	6.6000e-003	0.0286	206.3887
Worker	0.0788	0.0565	0.7723	2.3100e-003	0.2813	1.5600e-003	0.2829	0.0746	1.4300e-003	0.0760		233.6463	233.6463	5.4800e-003	5.7200e-003	235.4891
<b>Total</b>	<b>0.0927</b>	<b>0.7222</b>	<b>0.9771</b>	<b>5.5600e-003</b>	<b>0.3907</b>	<b>5.9900e-003</b>	<b>0.3967</b>	<b>0.1055</b>	<b>5.6700e-003</b>	<b>0.1112</b>		<b>586.7987</b>	<b>586.7987</b>	<b>0.0207</b>	<b>0.0590</b>	<b>604.8940</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.4 Building Construction - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5677	14.3817	16.2336	0.0271		0.6807	0.6807		0.6334	0.6334		2,550.0718	2,550.0718	0.7567		2,568.9904
<b>Total</b>	<b>1.5677</b>	<b>14.3817</b>	<b>16.2336</b>	<b>0.0271</b>		<b>0.6807</b>	<b>0.6807</b>		<b>0.6334</b>	<b>0.6334</b>		<b>2,550.0718</b>	<b>2,550.0718</b>	<b>0.7567</b>		<b>2,568.9904</b>

**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	0.0473	1.8704	0.6336	9.7000e-003	0.3498	0.0115	0.3613	0.1007	0.0110	0.1116		1,045.0424	1,045.0424	0.0349	0.1510	1,090.9117
Worker	0.4607	0.3306	4.5182	0.0135	1.6456	9.1000e-003	1.6547	0.4364	8.3800e-003	0.4448		1,366.8311	1,366.8311	0.0321	0.0335	1,377.6114
<b>Total</b>	<b>0.5081</b>	<b>2.2010</b>	<b>5.1518</b>	<b>0.0232</b>	<b>1.9953</b>	<b>0.0206</b>	<b>2.0159</b>	<b>0.5370</b>	<b>0.0194</b>	<b>0.5564</b>		<b>2,411.8735</b>	<b>2,411.8735</b>	<b>0.0670</b>	<b>0.1845</b>	<b>2,468.5230</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.4 Building Construction - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5677	14.3817	16.2336	0.0271		0.6807	0.6807		0.6334	0.6334	0.0000	2,550.0718	2,550.0718	0.7567		2,568.9904
<b>Total</b>	<b>1.5677</b>	<b>14.3817</b>	<b>16.2336</b>	<b>0.0271</b>		<b>0.6807</b>	<b>0.6807</b>		<b>0.6334</b>	<b>0.6334</b>	<b>0.0000</b>	<b>2,550.0718</b>	<b>2,550.0718</b>	<b>0.7567</b>		<b>2,568.9904</b>

**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	0.0473	1.8704	0.6336	9.7000e-003	0.3498	0.0115	0.3613	0.1007	0.0110	0.1116		1,045.0424	1,045.0424	0.0349	0.1510	1,090.9117
Worker	0.4607	0.3306	4.5182	0.0135	1.6456	9.1000e-003	1.6547	0.4364	8.3800e-003	0.4448		1,366.8311	1,366.8311	0.0321	0.0335	1,377.6114
<b>Total</b>	<b>0.5081</b>	<b>2.2010</b>	<b>5.1518</b>	<b>0.0232</b>	<b>1.9953</b>	<b>0.0206</b>	<b>2.0159</b>	<b>0.5370</b>	<b>0.0194</b>	<b>0.5564</b>		<b>2,411.8735</b>	<b>2,411.8735</b>	<b>0.0670</b>	<b>0.1845</b>	<b>2,468.5230</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.4 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	1.4908	13.6112	16.0707	0.0271		0.6102	0.6102		0.5678	0.5678		2,550.2395	2,550.2395	0.7553		2,569.1229
<b>Total</b>	<b>1.4908</b>	<b>13.6112</b>	<b>16.0707</b>	<b>0.0271</b>		<b>0.6102</b>	<b>0.6102</b>		<b>0.5678</b>	<b>0.5678</b>		<b>2,550.2395</b>	<b>2,550.2395</b>	<b>0.7553</b>		<b>2,569.1229</b>

**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	0.0460	1.8805	0.6225	9.5600e-003	0.3498	0.0115	0.3613	0.1007	0.0110	0.1117		1,030.0483	1,030.0483	0.0349	0.1490	1,075.3368
Worker	0.4319	0.2948	4.2049	0.0131	1.6456	8.7000e-003	1.6543	0.4364	8.0100e-003	0.4444		1,326.9408	1,326.9408	0.0290	0.0311	1,336.9416
<b>Total</b>	<b>0.4778</b>	<b>2.1752</b>	<b>4.8274</b>	<b>0.0227</b>	<b>1.9953</b>	<b>0.0202</b>	<b>2.0155</b>	<b>0.5370</b>	<b>0.0190</b>	<b>0.5561</b>		<b>2,356.9891</b>	<b>2,356.9891</b>	<b>0.0640</b>	<b>0.1802</b>	<b>2,412.2784</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.4 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	1.4908	13.6112	16.0707	0.0271		0.6102	0.6102		0.5678	0.5678	0.0000	2,550.2395	2,550.2395	0.7553		2,569.1229
<b>Total</b>	<b>1.4908</b>	<b>13.6112</b>	<b>16.0707</b>	<b>0.0271</b>		<b>0.6102</b>	<b>0.6102</b>		<b>0.5678</b>	<b>0.5678</b>	<b>0.0000</b>	<b>2,550.2395</b>	<b>2,550.2395</b>	<b>0.7553</b>		<b>2,569.1229</b>

**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	0.0460	1.8805	0.6225	9.5600e-003	0.3498	0.0115	0.3613	0.1007	0.0110	0.1117		1,030.0483	1,030.0483	0.0349	0.1490	1,075.3368
Worker	0.4319	0.2948	4.2049	0.0131	1.6456	8.7000e-003	1.6543	0.4364	8.0100e-003	0.4444		1,326.9408	1,326.9408	0.0290	0.0311	1,336.9416
<b>Total</b>	<b>0.4778</b>	<b>2.1752</b>	<b>4.8274</b>	<b>0.0227</b>	<b>1.9953</b>	<b>0.0202</b>	<b>2.0155</b>	<b>0.5370</b>	<b>0.0190</b>	<b>0.5561</b>		<b>2,356.9891</b>	<b>2,356.9891</b>	<b>0.0640</b>	<b>0.1802</b>	<b>2,412.2784</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.5 Paving - 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	1.0004	8.7992	10.1983	0.0140		0.5011	0.5011		0.4610	0.4610		1,352.8518	1,352.8518	0.4375		1,363.7903
Paving	1.1681					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.1685</b>	<b>8.7992</b>	<b>10.1983</b>	<b>0.0140</b>		<b>0.5011</b>	<b>0.5011</b>		<b>0.4610</b>	<b>0.4610</b>		<b>1,352.8518</b>	<b>1,352.8518</b>	<b>0.4375</b>		<b>1,363.7903</b>

**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	0.0554	0.0378	0.5391	1.6800e-003	0.2110	1.1200e-003	0.2121	0.0559	1.0300e-003	0.0570		170.1206	170.1206	3.7200e-003	3.9900e-003	171.4028
<b>Total</b>	<b>0.0554</b>	<b>0.0378</b>	<b>0.5391</b>	<b>1.6800e-003</b>	<b>0.2110</b>	<b>1.1200e-003</b>	<b>0.2121</b>	<b>0.0559</b>	<b>1.0300e-003</b>	<b>0.0570</b>		<b>170.1206</b>	<b>170.1206</b>	<b>3.7200e-003</b>	<b>3.9900e-003</b>	<b>171.4028</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.5 Paving - 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	1.0004	8.7992	10.1983	0.0140		0.5011	0.5011		0.4610	0.4610	0.0000	1,352.8518	1,352.8518	0.4375		1,363.7903
Paving	1.1681					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.1685</b>	<b>8.7992</b>	<b>10.1983</b>	<b>0.0140</b>		<b>0.5011</b>	<b>0.5011</b>		<b>0.4610</b>	<b>0.4610</b>	<b>0.0000</b>	<b>1,352.8518</b>	<b>1,352.8518</b>	<b>0.4375</b>		<b>1,363.7903</b>

**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	0.0554	0.0378	0.5391	1.6800e-003	0.2110	1.1200e-003	0.2121	0.0559	1.0300e-003	0.0570		170.1206	170.1206	3.7200e-003	3.9900e-003	171.4028
<b>Total</b>	<b>0.0554</b>	<b>0.0378</b>	<b>0.5391</b>	<b>1.6800e-003</b>	<b>0.2110</b>	<b>1.1200e-003</b>	<b>0.2121</b>	<b>0.0559</b>	<b>1.0300e-003</b>	<b>0.0570</b>		<b>170.1206</b>	<b>170.1206</b>	<b>3.7200e-003</b>	<b>3.9900e-003</b>	<b>171.4028</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.6 Architectural Coating - 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					
Archit. Coating	214.4290					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2199	1.2103	1.5286	2.1900e-003		0.0423	0.0423		0.0423	0.0423		178.0099	178.0099	0.0197		178.5032
<b>Total</b>	<b>214.6489</b>	<b>1.2103</b>	<b>1.5286</b>	<b>2.1900e-003</b>		<b>0.0423</b>	<b>0.0423</b>		<b>0.0423</b>	<b>0.0423</b>		<b>178.0099</b>	<b>178.0099</b>	<b>0.0197</b>		<b>178.5032</b>

**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	0.0849	0.0579	0.8266	2.5800e-003	0.3235	1.7100e-003	0.3252	0.0858	1.5800e-003	0.0874		260.8516	260.8516	5.7100e-003	6.1200e-003	262.8176
<b>Total</b>	<b>0.0849</b>	<b>0.0579</b>	<b>0.8266</b>	<b>2.5800e-003</b>	<b>0.3235</b>	<b>1.7100e-003</b>	<b>0.3252</b>	<b>0.0858</b>	<b>1.5800e-003</b>	<b>0.0874</b>		<b>260.8516</b>	<b>260.8516</b>	<b>5.7100e-003</b>	<b>6.1200e-003</b>	<b>262.8176</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****3.6 Architectural Coating - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	214.4290					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2199	1.2103	1.5286	2.1900e-003		0.0423	0.0423		0.0423	0.0423	0.0000	178.0099	178.0099	0.0197		178.5032
<b>Total</b>	<b>214.6489</b>	<b>1.2103</b>	<b>1.5286</b>	<b>2.1900e-003</b>		<b>0.0423</b>	<b>0.0423</b>		<b>0.0423</b>	<b>0.0423</b>	<b>0.0000</b>	<b>178.0099</b>	<b>178.0099</b>	<b>0.0197</b>		<b>178.5032</b>

**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	0.0849	0.0579	0.8266	2.5800e-003	0.3235	1.7100e-003	0.3252	0.0858	1.5800e-003	0.0874		260.8516	260.8516	5.7100e-003	6.1200e-003	262.8176
<b>Total</b>	<b>0.0849</b>	<b>0.0579</b>	<b>0.8266</b>	<b>2.5800e-003</b>	<b>0.3235</b>	<b>1.7100e-003</b>	<b>0.3252</b>	<b>0.0858</b>	<b>1.5800e-003</b>	<b>0.0874</b>		<b>260.8516</b>	<b>260.8516</b>	<b>5.7100e-003</b>	<b>6.1200e-003</b>	<b>262.8176</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, Winter

**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	1.5163	1.8727	16.2077	0.0382	4.3616	0.0278	4.3894	1.1623	0.0258	1.1882		3,895.351 4	3,895.351 4	0.2410	0.1666	3,951.014 2
Unmitigated	1.5163	1.8727	16.2077	0.0382	4.3616	0.0278	4.3894	1.1623	0.0258	1.1882		3,895.351 4	3,895.351 4	0.2410	0.1666	3,951.014 2

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	482.99	482.99	482.99	2,069,955	2,069,955
Total	482.99	482.99	482.99	2,069,955	2,069,955

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	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
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

## Mapes &amp; Sherman - South Coast AQMD Air District, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied****4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
Parking Lot	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
Unrefrigerated Warehouse-No Rail	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657

**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	7.0500e-003	0.0641	0.0539	3.8000e-004		4.8700e-003	4.8700e-003		4.8700e-003	4.8700e-003		76.9435	76.9435	1.4700e-003	1.4100e-003	77.4007
NaturalGas Unmitigated	7.0500e-003	0.0641	0.0539	3.8000e-004		4.8700e-003	4.8700e-003		4.8700e-003	4.8700e-003		76.9435	76.9435	1.4700e-003	1.4100e-003	77.4007

## Mapes &amp; Sherman - South Coast AQMD Air District, 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
Unrefrigerated Warehouse-No Rail	654.019	7.0500e-003	0.0641	0.0539	3.8000e-004		4.8700e-003	4.8700e-003		4.8700e-003	4.8700e-003		76.9435	76.9435	1.4700e-003	1.4100e-003	77.4007
<b>Total</b>		<b>7.0500e-003</b>	<b>0.0641</b>	<b>0.0539</b>	<b>3.8000e-004</b>		<b>4.8700e-003</b>	<b>4.8700e-003</b>		<b>4.8700e-003</b>	<b>4.8700e-003</b>		<b>76.9435</b>	<b>76.9435</b>	<b>1.4700e-003</b>	<b>1.4100e-003</b>	<b>77.4007</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, 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 s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/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
Unrefrigerated Warehouse-No Rail	0.654019	7.0500e- 003	0.0641	0.0539	3.8000e- 004		4.8700e- 003	4.8700e- 003		4.8700e- 003	4.8700e- 003		76.9435	76.9435	1.4700e- 003	1.4100e- 003	77.4007
<b>Total</b>		<b>7.0500e- 003</b>	<b>0.0641</b>	<b>0.0539</b>	<b>3.8000e- 004</b>		<b>4.8700e- 003</b>	<b>4.8700e- 003</b>		<b>4.8700e- 003</b>	<b>4.8700e- 003</b>		<b>76.9435</b>	<b>76.9435</b>	<b>1.4700e- 003</b>	<b>1.4100e- 003</b>	<b>77.4007</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

## Mapes &amp; Sherman - South Coast AQMD Air District, 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	6.2085	7.4000e-004	0.0814	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1750	0.1750	4.6000e-004		0.1864
Unmitigated	6.2085	7.4000e-004	0.0814	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1750	0.1750	4.6000e-004		0.1864

**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	0.7050					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.4960					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.5000e-003	7.4000e-004	0.0814	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1750	0.1750	4.6000e-004		0.1864
<b>Total</b>	<b>6.2085</b>	<b>7.4000e-004</b>	<b>0.0814</b>	<b>1.0000e-005</b>		<b>2.9000e-004</b>	<b>2.9000e-004</b>		<b>2.9000e-004</b>	<b>2.9000e-004</b>		<b>0.1750</b>	<b>0.1750</b>	<b>4.6000e-004</b>		<b>0.1864</b>

## Mapes &amp; Sherman - South Coast AQMD Air District, Winter

**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	0.7050					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.4960					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.5000e-003	7.4000e-004	0.0814	1.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004		0.1750	0.1750	4.6000e-004		0.1864
<b>Total</b>	<b>6.2085</b>	<b>7.4000e-004</b>	<b>0.0814</b>	<b>1.0000e-005</b>		<b>2.9000e-004</b>	<b>2.9000e-004</b>		<b>2.9000e-004</b>	<b>2.9000e-004</b>		<b>0.1750</b>	<b>0.1750</b>	<b>4.6000e-004</b>		<b>0.1864</b>

**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

8.0 Waste Detail

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8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

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Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation

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Technical Consultation, Data Analysis and  
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**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 – 2014, 2017;
- Senior Environmental Analyst, Komex H<sub>2</sub>O 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, Colorado.

**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 representatives, 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.**, Fukunaga, 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.

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**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.



Technical Consultation, Data Analysis and  
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## ***Paul Rosenfeld, Ph.D.***

*Principal Environmental Chemist*

**Chemical Fate and Transport & Air Dispersion Modeling**

**Risk Assessment & Remediation Specialist**

### **Education**

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Focus on wastewater treatment.

### **Professional Experience**

Dr. Rosenfeld has over 25 years of experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, industrial, military and agricultural sources, unconventional oil drilling operations, and locomotive and construction engines. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities. Dr. Rosenfeld has also successfully modeled exposure to contaminants distributed by water systems and via vapor intrusion.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, creosote, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at sites and has testified as an expert witness on numerous cases involving exposure to soil, water and air contaminants from industrial, railroad, agricultural, and military sources.

## **Professional History:**

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner  
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)  
UCLA School of Public Health; 2003 to 2006; Adjunct Professor  
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator  
UCLA Institute of the Environment, 2001-2002; Research Associate  
Komex H<sub>2</sub>O Science, 2001 to 2003; Senior Remediation Scientist  
National Groundwater Association, 2002-2004; Lecturer  
San Diego State University, 1999-2001; Adjunct Professor  
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager  
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager  
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor  
King County, Seattle, 1996 – 1999; Scientist  
James River Corp., Washington, 1995-96; Scientist  
Big Creek Lumber, Davenport, California, 1995; Scientist  
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist  
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

## **Publications:**

**Rosenfeld P. E.**, Spaeth K., Hallman R., Bressler R., Smith, G., (2022) [Cancer Risk and Diesel Exhaust Exposure Among Railroad Workers](#). *Water Air Soil Pollution*. **233**, 171.

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health*. 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P.**, (2015) Modeling the Effect of Refinery Emission On Residential Property Value. *Journal of Real Estate Research*. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.**, Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermid and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

**Rosenfeld, P.E.** & Feng, L. (2011). *The Risks of Hazardous Waste*. Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries*. Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P.** (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution*, 123 (17), 319-327.

Tam L. K., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. 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). Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

**Rosenfeld, P.E.** (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P.** (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

**Rosenfeld, P. E.** (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23<sup>rd</sup> Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

**Rosenfeld, P. E.** (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23<sup>rd</sup> Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

**Rosenfeld, P. E.** (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. *The 23<sup>rd</sup> Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

**Rosenfeld P. E.** (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

**Rosenfeld P. E.** (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting*. Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.**, Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.**, Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition*. Lecture conducted from Boston Massachusetts.

**Paul Rosenfeld Ph.D.** (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference*. Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

**Paul Rosenfeld Ph.D.** (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

**Paul Rosenfeld Ph.D.** (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel in Irvine, California.

**Paul Rosenfeld Ph.D.** (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference*. Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

**Paul Rosenfeld Ph.D.** (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

**Paul Rosenfeld Ph.D.** (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

**Paul Rosenfeld Ph.D.** (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation*. *2005 National Groundwater Association Ground Water and Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

**Paul Rosenfeld, Ph.D.** and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

**Paul Rosenfeld, Ph.D.** (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

**Paul Rosenfeld, Ph.D.** (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

**Rosenfeld, P. E.**, Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference Orlando, FL*.

**Paul Rosenfeld, Ph.D.** and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants..* Lecture conducted from Hyatt Regency Phoenix Arizona.

**Paul Rosenfeld, Ph.D.** (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

**Paul Rosenfeld, Ph.D.** (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

**Rosenfeld, P.E.** and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

**Rosenfeld, P.E.** and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

**Rosenfeld, P.E.** and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

**Rosenfeld, P.E.** and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conference*. Lecture conducted from Indianapolis, Maryland.

**Rosenfeld, P.E.** (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation*. Lecture conducted from Anaheim California.

**Rosenfeld, P.E.** (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest*. Lecture conducted from Ocean Shores, California.

**Rosenfeld, P.E.** (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

**Rosenfeld, P.E.**, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

**Rosenfeld, P.E.**, and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

**Rosenfeld, P.E.,** C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell*. Lecture conducted from Seattle Washington.

**Rosenfeld, P.E.,** C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest*. Lecture conducted from Lake Chelan, Washington.

**Rosenfeld, P.E.,** C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

**Rosenfeld, P.E.,** C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

## **Teaching Experience:**

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

## **Academic Grants Awarded:**

California Integrated Waste Management Board. \$41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: \$10,000 grant awarded to San Diego State University. Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. \$100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. \$20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: \$10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: \$15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. \$500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

### **Deposition and/or Trial Testimony:**

In the Superior Court of the State of California, County of San Bernardino  
Billy Wildrick, Plaintiff vs. BNSF Railway Company  
Case No. CIVDS1711810  
Rosenfeld Deposition 10-17-2022

In the State Court of Bibb County, State of Georgia  
Richard Hutcherson, Plaintiff vs Norfolk Southern Railway Company  
Case No. 10-SCCV-092007  
Rosenfeld Deposition 10-6-2022

In the Civil District Court of the Parish of Orleans, State of Louisiana  
Millard Clark, Plaintiff vs. Dixie Carriers, Inc. et al.  
Case No. 2020-03891  
Rosenfeld Deposition 9-15-2022

In The Circuit Court of Livingston County, State of Missouri, Circuit Civil Division  
Shirley Ralls, Plaintiff vs. Canadian Pacific Railway and Soo Line Railroad  
Case No. 18-LV-CC0020  
Rosenfeld Deposition 9-7-2022

In The Circuit Court of the 13th Judicial Circuit Court, Hillsborough County, Florida Civil Division  
Jonny C. Daniels, Plaintiff vs. CSX Transportation Inc.  
Case No. 20-CA-5502  
Rosenfeld Deposition 9-1-2022

In The Circuit Court of St. Louis County, State of Missouri  
Kieth Luke et. al. Plaintiff vs. Monsanto Company et. al.  
Case No. 19SL-CC03191  
Rosenfeld Deposition 8-25-2022

In The Circuit Court of the 13th Judicial Circuit Court, Hillsborough County, Florida Civil Division  
Jeffery S. Lamotte, Plaintiff vs. CSX Transportation Inc.  
Case No. NO. 20-CA-0049  
Rosenfeld Deposition 8-22-2022

In State of Minnesota District Court, County of St. Louis Sixth Judicial District  
Greg Bean, Plaintiff vs. Soo Line Railroad Company  
Case No. 69-DU-CV-21-760  
Rosenfeld Deposition 8-17-2022

In United States District Court Western District of Washington at Tacoma, Washington  
John D. Fitzgerald Plaintiff vs. BNSF  
Case No. 3:21-cv-05288-RJB  
Rosenfeld Deposition 8-11-2022

In Circuit Court of the Sixth Judicial Circuit, Macon Illinois  
Rocky Bennyhoff Plaintiff vs. Norfolk Southern  
Case No. 20-L-56  
Rosenfeld Deposition 8-3-2022

In Court of Common Pleas, Hamilton County Ohio  
Joe Briggins Plaintiff vs. CSX  
Case No. A2004464  
Rosenfeld Deposition 6-17-2022

In the Superior Court of the State of California, County of Kern  
George LaFazia vs. BNSF Railway Company.  
Case No. BCV-19-103087  
Rosenfeld Deposition 5-17-2022

In the Circuit Court of Cook County Illinois  
Bobby Earles vs. Penn Central et. al.  
Case No. 2020-L-000550  
Rosenfeld Deposition 4-16-2022

In United States District Court Easter District of Florida  
Albert Hartman Plaintiff vs. Illinois Central  
Case No. 2:20-cv-1633  
Rosenfeld Deposition 4-4-2022

In the Circuit Court of the 4<sup>th</sup> 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 Cuntly 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, 112<sup>th</sup> Judicial District  
Phillip Bales et al., Plaintiff vs. Dow Agrosiences, 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., Plaintiffs 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 Gilbert, 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 17<sup>th</sup> 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



RIVERSIDE COUNTY FLOOD CONTROL  
AND WATER CONSERVATION DISTRICT

242331

February 16, 2022

City of Menifee  
Planning Division  
29714 Haun Road, Building A  
Menifee, CA 92586

Attention: Fernando Herrera

Re: DEV No. 2022-003, PLN22-015  
APNs 329-030-003, -048, and -049

The Riverside County Flood Control and Water Conservation District (District) does not normally recommend conditions for land divisions or other land use cases in incorporated cities. The District also does not plan check City land use cases, or provide State Division of Real Estate letters or other flood hazard reports for such cases. District comments/recommendations for such cases are normally limited to items of specific interest to the District including District Master Drainage Plan facilities, other regional flood control and drainage facilities which could be considered a logical component or extension of a master plan system, and District Area Drainage Plan fees (development mitigation fees). In addition, information of a general nature is provided.

The District's review is based on the above-referenced project transmittal, received February 10, 2022. The District **has not** reviewed the proposed project in detail, and the following comments do not in any way constitute or imply District approval or endorsement of the proposed project with respect to flood hazard, public health and safety, or any other such issue:

- ☐ This project would not be impacted by District Master Drainage Plan facilities, nor are other facilities of regional interest proposed.
- ☒ This project involves District proposed Master Drainage Plan facilities, namely, Romoland Line B. The District will accept ownership of such facilities on written request of the City. Facilities must be constructed to District standards, and District plan check and inspection will be required for District acceptance. Plan check, inspection, and administrative fees will be required.
- ☐ This project proposes channels, storm drains 36 inches or larger in diameter, or other facilities that could be considered regional in nature and/or a logical extension of the adopted Romoland Master Drainage Plan. The District would consider accepting ownership of such facilities on written request of the City. Facilities must be constructed to District standards, and District plan check and inspection will be required for District acceptance. Plan check, inspection, and administrative fees will be required.
- ☒ This project is located within the limits of the District's Homeland/Romoland - Line B Area Drainage Plan for which drainage fees have been adopted; applicable fees should be paid by cashier's

City of Menifee

Re: DEV No. 2022-003, PLN22-015  
APNs 329-030-003, -048, and -049

242331

check or money order only to the Flood Control District or City prior to issuance of grading permits. Fees to be paid should be at the rate in effect at the time of issuance of the actual permit.

- ☐ An encroachment permit for Site 1 shall be obtained for any construction related activities occurring within District right of way or facilities, namely, \_\_\_\_\_. For further information, contact the District's Encroachment Permit Section at 951.955.1266.
- ☐ The District's previous comments are still valid.

**GENERAL INFORMATION**

This project may require a National Pollutant Discharge Elimination System (NPDES) permit from the State Water Resources Control Board. Clearance for grading, recordation, or other final approval should not be given until the City has determined that the project has been granted a permit or is shown to be exempt.

If this project involves a Federal Emergency Management Agency (FEMA) mapped floodplain, then the City should require the applicant to provide all studies, calculations, plans, and other information required to meet FEMA requirements, and should further require that the applicant obtain a Conditional Letter of Map Revision (CLOMR) prior to grading, recordation, or other final approval of the project and a Letter of Map Revision (LOMR) prior to occupancy.

If a natural watercourse or mapped floodplain is impacted by this project, the City should require the applicant to obtain a Section 1602 Agreement from the California Department of Fish and Wildlife and a Clean Water Act Section 404 Permit from the U.S. Army Corps of Engineers, or written correspondence from these agencies indicating the project is exempt from these requirements. A Clean Water Act Section 401 Water Quality Certification may be required from the local California Regional Water Quality Control Board prior to issuance of the Corps 404 permit.

Very truly yours,



DEBORAH DE CHAMBEAU  
Engineering Project Manager

c: Riverside County Planning Department  
Attn: Phayvanh Nanthavongdouangsy

AMR:blm



RIVERSIDE COUNTY FLOOD CONTROL  
AND WATER CONSERVATION DISTRICT

251259

May 30, 2023

City of Menifee  
Planning Division  
29714 Haun Road, Building A  
Menifee, CA 92586

Attention: Mr. Fernando Herrera

Re: PLN 22-015, Mapes & Sherman Commerce  
Center, APNs 329-030-003, 329-030-048, and  
329-030-049

The Riverside County Flood Control and Water Conservation District (District) does not normally recommend conditions for land divisions or other land use cases in incorporated cities. The District also does not plan check City land use cases or provide State Division of Real Estate letters or other flood hazard reports for such cases. District comments/recommendations for such cases are normally limited to items of specific interest to the District including District Master Drainage Plan facilities, other regional flood control and drainage facilities which could be considered a logical component or extension of a master plan system, and District Area Drainage Plan fees (development mitigation fees). In addition, information of a general nature is provided.

The District's review is based on the above-referenced project transmittal, received May 16, 2023. The District **has not** reviewed the proposed project in detail, and the following comments do not in any way constitute or imply District approval or endorsement of the proposed project with respect to flood hazard, public health and safety, or any other such issue:

- ☐ This project would not be impacted by District Master Drainage Plan facilities, nor are other facilities of regional interest proposed.
- ☒ This project involves District proposed Master Drainage Plan facilities, namely, Romoland Master Drainage Plan Line B and Line B-1. The District will accept ownership of such facilities on written request of the City. Facilities must be constructed to District standards, and District plan check and inspection will be required for District acceptance. Plan check, inspection, and administrative fees will be required.
- ☐ This project proposes channels, storm drains 36 inches or larger in diameter, or other facilities that could be considered regional in nature and/or a logical extension of the adopted Romoland Master Drainage Plan. The District would consider accepting ownership of such facilities on written request of the City. Facilities must be constructed to District standards, and District plan check and inspection will be required for District acceptance. Plan check, inspection, and administrative fees will be required.
- ☒ This project is located within the limits of the District's Homeland/Romoland Line B Area Drainage Plan for which drainage fees have been adopted; applicable fees should be paid by cashier's check

or money order only to the Flood Control District or City prior to issuance of grading permits. Fees to be paid should be at the rate in effect at the time of issuance of the actual permit.

- ☐ An encroachment permit shall be obtained for any future construction related activities occurring within District right of way or facilities, namely, \_\_\_\_\_. If a proposed storm drain connection exceeds the hydraulic performance of the existing drainage facilities, mitigation will be required. For further information, contact the District's Encroachment Permit Section at 951.955.1266.
- ☒ The District's previous comments for case DEV 2022-003, PLN22-015 dated February 16, 2022 are still valid.

### **GENERAL INFORMATION**

This project may require a National Pollutant Discharge Elimination System (NPDES) permit from the State Water Resources Control Board. Clearance for grading, recordation, or other final approval should not be given until the City has determined that the project has been granted a permit or is shown to be exempt.

If this project involves a Federal Emergency Management Agency (FEMA) mapped floodplain, then the City should require the applicant to provide all studies, calculations, plans, and other information required to meet FEMA requirements, and should further require that the applicant obtain a Conditional Letter of Map Revision (CLOMR) prior to grading, recordation, or other final approval of the project and a Letter of Map Revision (LOMR) prior to occupancy.

The project proponent shall bear the responsibility for complying with all applicable mitigation measures defined in the California Environmental Quality Act (CEQA) document (i.e., Negative Declaration, Mitigated Negative Declaration, Environmental Impact Report) and/or Mitigation Monitoring and Reporting Program, if a CEQA document was prepared for the project. The project proponent shall also bear the responsibility for complying with all other federal, state, and local environmental rules and regulations that may apply.

If a natural watercourse or mapped floodplain is impacted by this project, the City should require the applicant to obtain a Section 1602 Agreement from the California Department of Fish and Wildlife and a Clean Water Act Section 404 Permit from the U.S. Army Corps of Engineers, or written correspondence from these agencies indicating the project is exempt from these requirements. A Clean Water Act Section 401 Water Quality Certification may be required from the local California Regional Water Quality Control Board prior to issuance of the Corps 404 permit.

Very truly yours,



AMY MCNEILL  
Engineering Project Manager

Attachments

ec: Riverside County Planning Department  
Attn: Timothy Wheeler  
EM:mm



May 18, 2023

City of Menifee Community Development  
Attention: Fernando Herrera, Associate Planner  
29844 Haun Road  
Menifee, CA 92586

**Subject: EMWD Comments for the Mapes and Sherman Commerce Center Project Notice of Intent to Adopt a Mitigated Negative Declaration**

**Location:** Southwest corner of Mapes Road and Sherman Road in the City of Menifee, Riverside County, California.

Dear Mr. Fernando Herrera:

Eastern Municipal Water District (EMWD) thanks you for the opportunity to comment on the Notice of Intention to Adopt a Mitigated Negative Declaration for the Mapes and Sherman Commerce Center Project (project). The project proposes the construction of an approximately 277,578 square foot concrete tilt-up building, which includes 10,000 square feet of office space on a vacant 13.34 gross acre project site. The proposed building would have a maximum overall height of approximately 51 feet and include 36 dock doors. The project would also include 308 vehicle parking spaces, on-site landscape and full on-site and off-site improvements.

EMWD offers the following comments:

To define the impact(s) on the environment and on existing EMWD facilities, and as development within this area occurs over time, the proponents of implementing development projects shall consult EMWD's Development Services Department to compare proposed and existing water demands and sewer flows, and prepare a Design Conditions report (DC), formally known as the Plan of Service (POS), to detail all pertinent facilities necessary to serve such implementing development projects, resulting in an approved DC, prior to final design and plan check of such facilities.

Board of Directors

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To help define EMWD's Design Conditions, EMWD requires beginning dialogue with project proponents at an early stage in the site design and development, via a one-hour complementary Due Diligence meeting. To set up this meeting the project proponent should complete a Project Questionnaire (form NBD-058) and submit to EMWD. To download this form or for additional information, please visit our web page [www.emwd.org](http://www.emwd.org), then select the "Developer" link, then select the "New Development Process Forms" link. This meeting will offer the following benefits:

1. Describe EMWD's development process.
2. Identify project scope and parameters.
3. Provide a preliminary review of the project within the context of existing infrastructure.
4. Discuss potential candidacy for recycled water service.
5. Identify project submittal requirements to start the Design Conditions review.

Following the Due Diligence meeting, and to proceed with a project, the Design Conditions will need to be developed by the developer's engineer and reviewed/approved by EMWD prior to submitting improvement plans for Plan Check. The DC process and approval will provide the following:

1. Technical evaluation of the project's demands and existing system capacities.
2. Identification of impacts to existing facilities.
3. Identification of additional on-site and off-site facilities, necessary to serve the project.
4. Identification of easement requirements, if necessary.
5. Identification of potential EMWD's cost participation in facility oversizing, if applicable.

If you have questions or concerns, please do not hesitate to contact Maroun El-Hage at (951) 928-3777, extension 4468 or by e-mail at [El-hagem@emwd.org](mailto:El-hagem@emwd.org).

Sincerely,

Alfred Javier  
Director of Environmental and Regulatory Compliance

ARJ: hs