Exhibit B

Final Environmental Impact Report

880 Doolittle Drive Industrial Project

Final Environmental Impact Report

PLN22-0039
State Clearinghouse No. 2023110597

prepared by

City of San Leandro
835 East 14th Street
San Leandro, California 94577
Contact: Cindy Lemaire, AICP, CNU-A, Senior Planner

prepared with the assistance of

Rincon Consultants, Inc.
66 Franklin Street, Suite 300
Oakland, California 94607

December 2024

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
rinconconsultants.com

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Table of Contents

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1 Introduction

1.1 Purpose of the Response to Comments Document

This Response to Comments (RTC) document provides responses to public and agency written comments received by the City of San Leandro on the Draft Environmental Impact Report (EIR) for the proposed 880 Doolittle Drive Industrial Project (project). The Draft EIR identifies the likely environmental consequences associated with development of the proposed project and recommends mitigation measures to reduce potentially significant impacts. In addition to providing responses to public and agency comments received on the Draft EIR, this RTC document also makes revisions to the Draft EIR, as necessary, in response to those comments or to make clarifications to information presented in the Draft EIR. This document, together with the Draft EIR, constitutes the Final EIR for the proposed project.

1.2 Environmental Review Process

Pursuant to the California Environmental Quality Act (CEQA), lead agencies are required to consult with public agencies having jurisdiction over a proposed project and to provide the general public with an opportunity to comment on the Draft EIR.

On November 21, 2023, the City of San Leandro circulated a Notice of Preparation (NOP) for a 30-day period to identify environmental issue areas potentially affected if the proposed project were to be implemented. The NOP was mailed or otherwise provided to public agencies, the State Clearinghouse, organizations, and individuals considered likely to be interested in the proposed project and its potential impacts. Comments received by the City of San Leandro on the NOP are provided in Appendix B of the Draft EIR and are summarized in Table 1-1 of the Draft EIR. These comments were taken into account during the preparation of the Draft EIR and the Initial Study, which is provided as Appendix A to the Draft EIR.

The Draft EIR was made available for public review on June 21, 2024. Copies of the Notice of Availability of the Draft EIR were mailed to a list of interested parties, groups and public agencies. The Draft EIR was posted with the State Clearinghouse for distribution to applicable state agencies. The Draft EIR and an announcement of its availability were posted electronically on the City's website, and a paper copy of the Draft EIR was available for public review at the San Leandro Community Development Department and at the San Leandro Community Library. The Notice of Availability of the Draft EIR was published in the East Bay Times on June 21, 2024, and also posted at the office of the Alameda County Clerk.

The City of San Leandro received seven comment letters on the Draft EIR during the 45-day comment period, which began on June 21, 2024 and ended on August 5, 2024. Following August 5, 2024, the City was informed that it used outdated contact information when sending notification of the Draft EIR to Pacific Gas & Electric (PG&E). The City subsequently forwarded the notification to PG&E and accepted a late comment letter from PG&E for this reason. Likewise, one of the commenters provided a supplemental comment letter after the closure of the comment period, which the City chose to accept. Therefore, a total of nine comment letters were received and accepted on the Draft EIR. Copies of the nine written comments on the Draft EIR, as well as responses to those comments, are included in Section 3 of this document.

1.3 Document Organization

This RTC document consists of the following sections:

- *Section 1: Introduction.* This section discusses the purpose and organization of this RTC Document and the Final EIR, and summarizes the environmental review process for the project.
- *Section 2: List of Commenters.* This section contains a list of the agencies and private groups and organizations that submitted written comments during the public review period on the Draft EIR. No comments were received from individuals.
- *Section 3: Comments and Responses.* This section contains reproductions of all comment letters received on the Draft EIR. A written response for each CEQA-related comment received during the public review period is provided. Each response is keyed to the corresponding comment.
- *Section 4: Draft EIR Revisions.* Revisions to the Draft EIR that are necessary in light of the comments received and responses provided, or necessary to amplify or clarify material in the Draft EIR, are contained in this section. <u>Underlined</u> text represents language that has been added to the Draft EIR; text with ~~strikeout~~ formatting has been deleted from the Draft EIR.

2 List of Commenters

This section presents a list of comment letters received during the public review period and describes the organization of the letters and comments that are provided in Section 3, *Comments and Responses*, of this document.

2.1 Organization of Comment Letters and Responses

The nine letters are presented in the following order: state agencies (1), regional and local public agencies (3, including a supplemental letter), and private groups and organizations (5). No federal agencies and no individuals provided written comments. Each comment letter has been numbered sequentially and each separate issue raised by the commenter has been assigned a number. The responses to each comment identify first the number of the comment letter, and then the number assigned to each issue. For example, Response 1.1 indicates that the response is for the first issue raised in comment Letter 1.

2.2 Comments Received

The following letters were submitted to the City during the public review period:

Letter Number and Commenter	Agency/ Group/ Organization	Page Number
State Agencies		
1. Yunsheng Luo, District Branch Chief	California Department of Transportation	5
Regional and Local Agencies		
2. David J. Rehnstrom, Manager of Water Distribution Planning	East Bay Municipal Utility District	10
3. Colleen Liang, Director of Environmental Programs and Planning	Port of Oakland	18
3b. Colleen Liang, Director of Environmental Programs and Planning	Port of Oakland	25
Private Groups and Organizations		
4. Dean Wallraff, Executive Director	Advocates for the Environment	31
5. Gary Ho	Blum Collins & Ho LLP	47
6. Jeremy Herwitt	Mitchell M. Tsai Law Firm	216
7. Claudia Tarpin, Director of Development	Prologis	510
8. Vince Fazzi, Land Agent	Pacific Gas & Electric Company (PG&E)	514

3 Comments and Responses

Written responses to each comment letter received on the Draft EIR are provided in this section. All letters received during the public review period on the Draft EIR are provided in their entirety.

Text within individual letters that has not been numbered for reference in the responses does not specifically raise environmental issues nor relate directly to the adequacy of the information or analysis within the Draft EIR, and therefore no comment is enumerated or response required, pursuant to *State CEQA Guidelines* sections 15088 and 15132.

Revisions to the Draft EIR necessary in light of the comments received and responses provided, or necessary to amplify or clarify material in the Draft EIR, are included in the responses. Underlined text represents language that has been added to the Draft EIR; text with ~~strikeout~~ has been deleted from the Draft EIR. All revisions are then compiled in the order in which they would appear in the Draft EIR (by page number) in Section 4, *Draft EIR Text Revisions*, of this document. Page numbers cited in this section correspond to the page numbers of the Draft EIR. When mitigation measure language has been changed, it has been changed in both the text on the stated Draft EIR page and the summary table (Table 1) in the Executive Summary of the Draft EIR.

CALIFORNIA STATE TRANSPORTATION AGENCY GAVIN NEWSOM, GOVERNOR

California Department of Transportation

DISTRICT 4
OFFICE OF REGIONAL AND COMMUNITY PLANNING
P.O. BOX 23660, MS–10D | OAKLAND, CA 94623-0660
www.dot.ca.gov

August 5, 2024

SCH #: 2023110597
GTS #: 04-ALA-2023-00830
GTS ID: 31377
Co/Rt/Pm: ALA/61/R15.21

Cindy Lemaire AICP, CNU-A, Senior Planner
City of San Leandro
835 East 14th Street
San Leandro, CA 94577

Re: 880 Doolittle Drive Industrial Project — Draft Environmental Impact Report (DEIR)

Dear Cindy Lemaire:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the 880 Doolittle Drive Industrial Project. The Local Development Review (LDR) Program reviews land use projects and plans to ensure consistency with our mission and state planning priorities. The following comments are based on our review of the June 2024 DEIR.

Please note this correspondence does not indicate an official position by Caltrans on this project and is for informational purposes only. 1.1

Project Understanding
The proposed project involves the demolition of existing vacant warehouse buildings and associated surface parking to construct a new warehouse with supporting office space, site improvements, and landscaping. This project site is in vicinity of State Route (SR)-61 and SR-112.

Hydrology
Some of the project lies in the 0.2% Annual Chance Flood Hazard per 06001C0252H 12/21/2018 Federal Emergency Management Agency (FEMA) Flood Plain Map. Please provide a floodplain analysis report for any documented and mitigated floodplain impacts. Any additional floodplain impacts on existing adjacent properties must be explained. 1.2

Please ensure that any increase in storm water runoff to State Drainage Systems or Facilities be treated, contained on project site, and metered to preconstruction levels. 1.3

If the project involves drainage work that flows into the State Drainage System, please provide a drainage design memo and show how the proposed drainage system flows on the Plans. The drainage design memo should include pre- and post- project flows to the existing drainage system. The Drainage Plan and Profile Sheets should include 1.4 lengths, size, and types of new and existing pipes, inlets, outlets, and systems showing any utility conflicts. Please include drainage details and profiles for connection to the existing drainage system. Any assumptions and calculations used in designing the drainage system should be shown.

Freight
Please specify the number of legal trucking spots that would be made available in the area. Given that there are sixty-four loading docks proposed, there should be a 1.5 specific number of legal truck parking spots as well as identifying potential areas that may be utilized as unauthorized truck parking to mitigate potential truck idling that may occur from the proposed project.

Construction-Related Impacts
Project work that requires movement of oversized or excessive load vehicles on State roadways requires a transportation permit that is issued by Caltrans. To apply, please visit Caltrans Transportation Permits (*link*). Prior to construction, coordination may be 1.6 required with Caltrans to develop a Transportation Management Plan (TMP) to reduce construction traffic impacts to the State Transportation Network (STN).

Thank you again for including Caltrans in the environmental review process. Should you have any questions regarding this letter, please contact Melissa Hernandez, 1.7 Associate Transportation Planner via LDR-D4@dot.ca.gov. For future early coordination opportunities or project referrals, please visit Caltrans LDR website (*link*) or contact LDR-D4@dot.ca.gov.

Sincerely,

YUNSHENG LUO
Branch Chief, Local Development Review
Office of Regional and Community Planning

c: State Clearinghouse

Letter 1

COMMENTER: Yunsheng Luo, District Branch Chief, California Department of Transportation

DATE: August 5, 2024

Response 1.1

The commenter notes their appreciation for inclusion in the CEQA process and states their understanding of the proposed project in the form of a summary.

The commenter's understanding of the proposed project is an accurate summary of the project as proposed and evaluated in the Draft EIR. This comment is noted and does not require revisions to the Draft EIR.

Response 1.2

The commenter states that the proposed project is within the 0.2 percent annual chance floodplain as mapped by the Federal Emergency Management Agency and requests that documentation of floodplain impacts be provided, including impacts on adjacent properties.

The commenter is correct that the proposed project is within the 0.2 percent annual chance floodplain. As described on page 88 of the Initial Study, which is included as Appendix A to the Draft EIR, the eastern most area of the project site is mapped as an area of minimal flood hazard and having a 0.2 percent annual chance to be inundated by flood waters as a result of a storm event, also known as the 500-year flood event. Potential impacts related to the project site's location within the 0.2 percent annual chance floodplain are evaluated on page 93 of the Initial Study. As described therein, the proposed project would include bioretention areas on-site. Compared with existing conditions, the bioretention areas would increase flood storage on the project site, which currently provides no areas to capture stormwater flows. Commercial warehouse structures, like the proposed project, typically do not routinely use or store large quantities of hazardous materials and pollutants other than those typically used for office cleaning, maintenance, and landscaping. Thus, as described on page 93 of the Initial Study, inundation of the project site from a flood (or tsunami) would not result in substantial release of pollutants into the environment. Additionally, existing conditions on the site are subject to inundation, and thus the project would not substantially alter existing conditions. For these reasons, flood-related impacts were determined to be less than significant, and no mitigation measures are required. This comment does not question the analysis or conclusions of the Draft EIR, and no revisions to the Draft EIR are necessary in response.

Response 1.3

The commenter requests that increases in stormwater runoff to State Drainage Systems or Facilities resulting from the project be treated, contained on project site, and metered to preconstruction levels.

As described on page 8 of the Initial Study, which is included as Appendix A to the Draft EIR, stormwater runoff on the project site would be treated on site to meet the current Alameda County C.3 stormwater regulations before being discharged to the existing storm drain system. As described on page 93 of the Initial Study, the proposed project would alter the existing drainage pattern of the site. However, the alterations would increase infiltration of precipitation and stormwater runoff through the addition of pervious landscaping that function as bioretention areas that do not exist under current conditions. Vegetated bioretention systems, like those included in the proposed project, are designed to slow down the velocity and reduce the volume of stormwater runoff using a combination of plants and filter media such as sand, gravel, compost, and soil. Additionally, as discussed on page 93 of the Initial Study, the project would be required to incorporate stormwater control measures and NPDES permit requirements to reduce the amount of runoff that would enter the storm drain system compared to existing conditions. The bioretention areas would be vegetated to prevent erosion or mobilization of soil within the bioretention areas. Vegetated bioretention areas also filter stormwater to reduce the concentration of pollutants mobilized in runoff, thereby reducing pollution in runoff that is discharged into receiving waters via the City's storm drain system. Accordingly, the proposed project has been designed to treat stormwater runoff and reduce runoff volume compared to existing (i.e., preconstruction) levels. No revisions to the Draft EIR are necessary in response to this comment

Response 1.4

The commenter requests that a drainage design memorandum be provided if the project would involve drainage work flowing into the State Drainage System.

This comment does not question the analysis or conclusions of the Draft EIR. Therefore, no revisions to the Draft EIR are necessary in response to this comment. However, for informational purposes, as described on page 8 of the Initial Study, stormwater runoff would be treated on site to meet the current Alameda County C.3 stormwater regulations before being discharged to the existing storm drain system. On-site treatment would occur with a series of bioswales. After entering on-site bioswales, treated runoff that infiltrates the soil would enter storm drain inlets installed in each bioswale. The inlets would connect to a storm drain pipeline installed beneath new surface parking areas and connect to an existing storm drain through the Doolittle Drive driveway. The existing storm drain beneath the Doolittle Drive driveway is a City facility. Drainage work would not flow into the State Drainage System from the proposed project.

Response 1.5

The commenter requests that the Draft EIR specify the number of legal trucking spots that would be made available in the area and identify potential areas that may be utilized as unauthorized truck parking to mitigate potential truck idling that may occur from the proposed project.

Parking included in the proposed project is described on page 2-13 of the Draft EIR. As described therein, the proposed project would include a surface parking area would be on the north side of the proposed warehouse that provides 59 spaces sized for tractor trailers. Additionally, as described on page 2-4 of the Draft EIR, 64 loading docks are proposed. These loading docks would have a depth of 74 feet. The average length of a tractor-trailer (the semi-truck and trailer combined) is about 72 feet long. Therefore, each loading dock door would also serve as a truck parking space, as needed. The 59 spaces in the surface parking lot and the 64 spaces that would be provided at loading docks would accommodate truck traffic on the project site. No unauthorized truck parking is proposed. Additionally, trucks parking on-site or waiting to park would not be permitted to idle for more than 5 minutes pursuant to Title 13, Section 2480 and 2485 of the California Code of Regulations (13 CCR 2480 & 2485).

The Draft EIR, including the Initial Study that is Appendix A to the Draft EIR, evaluates potential impacts of the project consistent with Appendix G of the *State CEQA Guidelines*. Appendix G of the *State CEQA Guidelines* identifies 21 environmental topics for evaluation in CEQA documents and provides a series of impact checklist questions to consider for each topic. Unauthorized parking, as well as legal parking, is not a topic or checklist question included in Appendix G of the *State CEQA Guidelines*, and parking supply and demand in and of themselves is not an environmental impact topic requiring study under CEQA. Therefore, the Draft EIR is not required to evaluate parking impacts of the project. Appendix G of the *State CEQA Guidelines* does include a checklist question about a substantial increase in transportation hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment) resulting from a project. Unauthorized parking could result in such a hazard depending on where the vehicle was parked. However, as described in the previous paragraph, unauthorized parking is not proposed or anticipated given the project would provide capacity to park approximately 123 tractor trailers. As described on page 4.4-7 of the Draft EIR, impacts related to transportation hazards would be less than significant without mitigation.

As the Draft EIR does specify the number of truck parking spaces and the project would not result in unauthorized truck parking, no revisions to the Draft EIR are required in responses to this comment. Additionally, the proposed project has been designed to provide the amount of parking required by the San Leandro Municipal Code.

Response 1.6

The commenter states that movement of oversized or excessive load vehicles on State roadways requires a transportation permit issued by Caltrans. The commenter states that prior to construction, coordination may be required with Caltrans to develop a Transportation Management Plan to reduce construction traffic impacts to the State Transportation Network.

This comment does not question the adequacy of the transportation impact analysis in the Draft EIR or suggest revisions to the Draft EIR. Therefore, no additional revisions to the Draft EIR are necessary in response to this comment. However, the City is aware of the regulations for operating on State highways. The project applicant would be responsible for obtaining all regulatory permits and approvals, including permits from Caltrans for the use of oversized or excessive load vehicles on State roadways. Caltrans retains the ability to require the applicant to develop a Transportation Management Plan during the permitting process.

Response 1.7

The commenter provides a point-of-contact if the City has questions regarding their comment letter. This information is noted.

LETTER 2

EAST BAY
MUNICIPAL UTILITY DISTRICT

July 19, 2024

Cindy Lemaire, AUCP, CNU-A, Senior Planner
Community Development Department
City of San Leandro
835 East 14th Street
San Leandro, CA 94577

Re: Notice of Availability of a Draft Environmental Impact Report – 880 Doolittle Drive Industrial Project, San Leandro

Dear Ms. Lemaire:

East Bay Municipal Utility District (EBMUD) appreciates the opportunity to comment on the Draft Environmental Impact Report (EIR) for the 880 Doolittle Drive Industrial Project located at 880 Doolittle Drive in the City of San Leandro (City). EBMUD commented on the Notice of Preparation of a Draft EIR for the project on December 18, 2023. EBMUD's original comments (see enclosure) still apply regarding water service and water conservation. 2.1

If you have any questions concerning this response, please contact Timothy R. McGowan, Senior Civil Engineer, Major Facilities Planning Section at (510) 287-1981.

Sincerely,

David J. Rehnstrom
Manager of Water Distribution Planning

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wdpd24_118 880 Doolittle Drive Industrial Project.doc

Enclosure: EBMUD's December 18, 2023 comment letter

EAST BAY
MUNICIPAL UTILITY DISTRICT

December 18, 2023

Cindy Lemaire, AICP, CNU-A, Senior Planner
Community Development Department
City of San Leandro
835 East 14th Street
San Leandro, CA 94577

Re: Notice of Preparation for a Draft Environmental Impact Report for the 880 Doolittle Drive Industrial Project (PLN22-0039), San Leandro

Dear Ms. Lemaire:

East Bay Municipal Utility District (EBMUD) appreciates the opportunity to comment on the Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for the 880 Doolittle Drive Industrial Project located in the City of San Leandro (City). EBMUD has the following comments.

WATER SERVICE

EBMUD's Central Pressure Zone, with a service elevation range between 0 and 100 feet, will serve the proposed development. Individual units in a newly built multi-occupancy commercial/industrial premises shall be individually metered. A main extension, at the project sponsor's expense, may be required to serve the proposed development depending on water and private fire service metering locations and fire flow requirements set by the local fire agency. Please see the attached EBMUD documents for California (Waterworks Standards) Code of Regulations, Title 22, Section 64572 (Water Main Separation) and EBMUD requirements for placement of water mains. When the development plans are finalized, the project sponsor should contact EBMUD's New Business Office and request a water service estimate to determine costs and conditions for providing water service to the project. Engineering and installation of water mains and services require substantial lead time, which should be provided for in the project sponsor's development schedule. 2.2

EBMUD's Standard Site Assessment indicates the potential for contaminated soils or groundwater to be present within the project site boundaries. The project sponsor should be aware that EBMUD will not install piping or services in contaminated soil or groundwater (if groundwater is present at any time during the year at the depth piping is to be installed) that must be handled as a hazardous waste or that may be hazardous to the health and safety of construction and maintenance personnel wearing Level D personal protective equipment. Nor will EBMUD install piping or services in areas where groundwater contaminant concentrations exceed specified limits for discharge to the sanitary sewer system and sewage treatment plants. The project sponsor must submit copies to EBMUD of all known information regarding soil and groundwater quality within or adjacent to the 2.3 2.4

375 ELEVENTH STREET . OAKLAND . CA 94607-4240 . TOLL FREE 1-866-40-EBMUD

project boundary and a legally sufficient, complete, and specific written remediation plan establishing the methodology, planning and design of all necessary systems for the removal, treatment, and disposal of contaminated soil and groundwater. 2.4

EBMUD will not design piping or services until soil and groundwater quality data and remediation plans have been received and reviewed and will not start underground work until remediation has been carried out and documentation of the effectiveness of the remediation has been received and reviewed. If no soil or groundwater quality data exists, or the information supplied by the project sponsor is insufficient, EBMUD may require the project sponsor to perform sampling and analysis to characterize the soil and groundwater 2.5
that may be encountered during excavation. Alternatively, EBMUD may perform such sampling and analysis at the project sponsor's expense. If evidence of contamination is discovered during EBMUD's work on the project site, work may be suspended until such contamination is adequately characterized and remediated to EBMUD's standards.

WATER CONSERVATION

The project presents an opportunity to incorporate water conservation measures. EBMUD requests that the City include in its conditions of approval a requirement that the project sponsor comply with Assembly Bill 325, "Model Water Efficient Landscape Ordinance," (Division 2, Title 23, California Code of Regulations, Chapter 2.7, Sections 490 through 2.6
495). The project sponsor should be aware that Section 31 of EBMUD's Water Service Regulations requires that water service shall not be furnished for new or expanded service unless all the applicable water-efficiency measures described in the regulation are installed at the project sponsor's expense.

If you have any questions concerning this response, please contact Timothy R. McGowan, Senior Civil Engineer, Major Facilities Planning Section at (510) 287-1981.

Sincerely,

David J. Rehnstrom
Manager of Water Distribution Planning

DJR:EZ:kn
wdpd23_241 880 Doolittle Drive Industrial Project

Attachment Applicant Pipeline Design Criteria

EAST BAY MUNICIPAL UTILITY DISTRICT

Applicant Pipeline Design Criteria

EBMUD values applicant pipeline projects and is committed to providing a thorough and efficient design. To ensure an efficient design process and to avoid significant delays the design criteria below should be adhered to when submitting improvement plans.

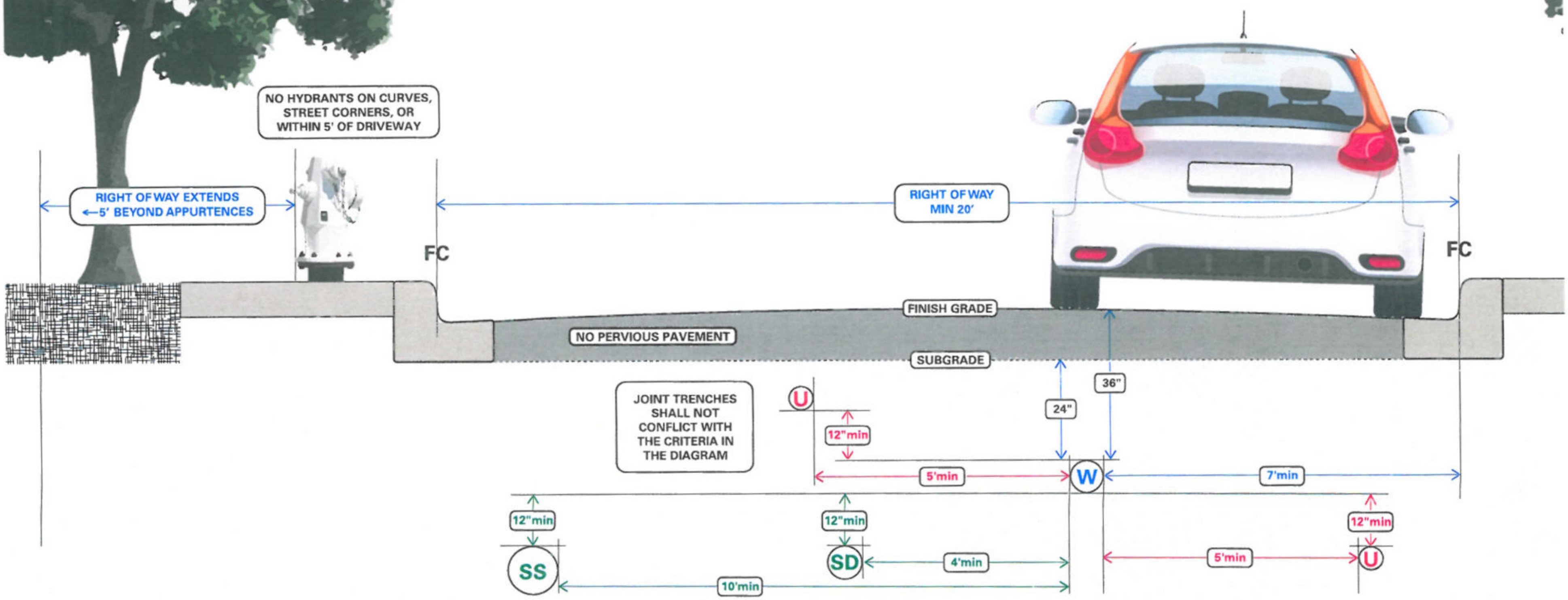
Design Criteria

- Water mains shall be seven (7) feet from face of curb.
- Water mains shall maintain a minimum one (1) foot vertical and five (5) foot horizontal clearance from other utilities.
- Gas mains shall meet the one (1) foot vertical separation requirement by installing the gas main below the water main only.
- Water mains shall maintain a minimum ten (10) foot horizontal clearance (O.D. to O.D.) and be located a minimum one (1) foot above any sewer main. Title 22 CCR
- Water mains shall maintain a minimum four (4) feet horizontal clearance (O.D. to O.D.) and be located a minimum one (1) foot above any storm drain. Title 22 CCR
- Water mains shall have a 36-inch cover to final grade and 24-inch cover to pavement subgrade.
- Joint trenches that are in conflict with the criteria above may delay the project. Submit to EBMUD final joint trench plans (no intent plans) which include the size of the joint trench and the utilities located inside.
- Water mains shall not be installed under pervious pavement.
- Water mains installed under decorative pavement, pavers, or stamped concrete will require an additional paving agreement.
- Hydrants shall not be located on curved sections of street, street corners, or within five feet of a driveway.
- Right of ways for 6-inch and 8-inch water mains shall be a minimum of 20 feet wide and extend five (5) feet past the water main centerline.
- Right of ways for 12-inch to 24-inch water mains shall be a minimum of 20 feet wide and extend eight (8) feet past the water main centerline.

Please contact the New Business Office representative assigned to your project if there are any questions regarding the requirements listed above. Meeting this criteria will enable the most efficient design possible.

EBMUD

APPLICANT PIPELINE DESIGN CRITERIA



W = WATER
24" cover to subgrade
36" cover to final grade
7' inset from face of curb

U = UTILITY
min 12" vertical clearance
min 5' horizontal clearance

SS = SANITARY SEWER
min 12" below water
min 10' horizontal clearance

SD = STORM DRAIN
min 12" below water
min 4' horizontal clearance

FC= FACE OF CURB

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Letter 2

COMMENTER: David J Rehnstrom, Manager of Water Distribution Planning, East Bay Municipal Utility District

DATE: July 19, 2024

Response 2.1

The commenter notes their appreciation for the opportunity to comment on the Draft EIR and mentions having submitted comments on the NOP. The commenter indicates that the comments they provided on the NOP continue to apply to the Draft EIR.

This comment does not question the analysis or conclusions of the Draft EIR. Therefore, no revisions to the Draft EIR are necessary in response to this comment. This comment does state that comments provided in response to the NOP also apply to the Draft EIR. Comments received by the City of San Leandro on the NOP are provided in Appendix B of the Draft EIR and are summarized in Table 1-1 of the Draft EIR. These comments were taken into account during the preparation of the Draft EIR and Initial Study, which is provided as Appendix A to the Draft EIR.

Response 2.2

The commenter states that the East Bay Municipal Utility District will provide water service to the project, and individual units in a newly built commercial/industrial building that will be individually metered. The commenter states that a new water main may be required at the project applicant's expense, and the project applicant should contact East Bay Municipal Utility District when development plans are finalized to obtain a water service estimate and determine the conditions for providing water service to the project.

Proposed utility connections and service for the proposed project are described on page 8 of the Initial Study, which is Appendix A to the Draft EIR. As described on Initial Study page 8, potable water service for the project would be provided by the East Bay Municipal Utility District, the City of San Leandro potable water service provider. A new water connection would be constructed on site and connect to an existing water main that is beneath the surface of the existing driveway at Doolittle Drive. Generally, the new water connection would be located beneath the new surface parking area on the west side of the proposed warehouse. A new fire hydrant pipeline would also connect to the existing water main in the project area in accordance with City code and requirements.

Because the East Bay Municipal Utility District would be the potable water service provider, the project applicant must by default work and coordinate with the East Bay Municipal Utility District on the final design and approval of the potable water service connections and mains. Additionally, the City is not responsible for development costs of the project, including costs that may be associated with the provision of potable water to the project. The applicant must provide payment of costs associated with potable water service directly to the East Bay Municipal Utility District.

This comment does not question the analysis or conclusions of the Draft EIR. Therefore, no revisions to the Draft EIR are necessary in response to this comment.

Response 2.3

The commenter states that there is potential for contaminated soils or groundwater to be present at the project site, and that East Bay Municipal Utility District will not install piping or water services in contaminated soil or groundwater that is considered hazardous.

The Draft EIR describes the potential for hazardous materials to exist on the project site in the form of contaminated soil and groundwater. Specifically, page 4.2-2 of the Draft EIR states that the project site is considered a hazardous site due to subsurface contamination with chlorinated volatile organic compounds. As described on page 4.2-4 of the Draft EIR, a Land Use Covenant (LUC) for the project site was filed with Alameda County in 2012 that requires DTSC approval of planned future use of groundwater at the project site and a Soil Management Plan prior to planned disturbance of subsurface soil in two limited areas of the site.

Impact HAZ-1, beginning on page 4.2-11 of the Draft EIR, describes how project construction, including the installation of buried utilities, could results in significant impacts related to worker exposure to contaminated soil or groundwater. As described on page 4.2-13 of the Draft EIR, implementation of Mitigation Measure HAZ-2 and Mitigation Measure HAZ 3 is required to reduce risks to construction workers and reduce the impacts to less than significant. Mitigation Measure HAZ-2 requires implementation of the approved Revised Soil and Groundwater Management Plan during construction. Mitigation Measure HAZ-3 requires containment of dewatering effluent and obtaining a discharge permit if released from containment. As described on page 4.2-18 of the Draft EIR, with incorporation of Mitigation Measure HAZ-2, the provisions of the approved Soil and Groundwater Management Plan for the site would reduce potential hazardous materials impacts associated with the past on-site contamination during project construction. Additionally, implementation of Mitigation Measure HAZ-3 would protect the health of construction workers and the environment during construction dewatering activities.

The City understands that East Bay Municipal Utility District will not install piping or water services in contaminated soil or groundwater that is considered hazardous. As shown on Figure 2-7 on page 2-15 of the Draft EIR, the proposed water connections would be installed in the western area of the project site, extending from a main within Doolittle Drive. As shown on Figure 4.2-2 on page 4.2-5 of the Draft EIR, the area where chlorinated volatile organic compounds in soils exceeds health screening levels in in the eastern area of the site. The project does not include installing a water main or connections within the contaminated soils area. Additionally, pursuant to Mitigation Measure HAZ-2, field screening of soils must be conducted continuously during ground disturbing activities, which would prevent excavation and installation of water connections in contaminated soils if present elsewhere on the project site but not yet known. No further revisions to the Draft EIR are required in response to this comment.

Response 2.4

The commenter states that the project applicant must provide the East Bay Municipal Utility District with all known information regarding soil and groundwater quality at and adjacent to the project site, as well as a legally sufficient and specific written remediation plan for the removal, treatment, and disposal of contaminated soil and groundwater. The commenter states that East Bay Municipal Utility District will not design piping or services until soil and groundwater quality data and remediation plans have been received and will not start underground work until remediation has been carried out and documentation of the effectiveness of the remediation has been received.

This comment pertains to construction protocol and coordination that must occur between the project applicant and East Bay Municipal Utility District in order for water services to be provided to the project. This comment does not question the analysis or conclusions of the Draft EIR. Therefore, no revisions to the Draft EIR are necessary in response to this comment. However, for informational purposes, the Draft EIR includes mitigation measures that require ongoing remediation during project construction, such as Mitigation Measure HAZ-2 (see Response 2.3, above). As described on page 4.2-16 of the Draft EIR, Mitigation Measure HAZ-2 requires the project applicant to continue to utilize Department of Toxic Substances Control for agency oversight of assessment and remediation of the project site through completion of construction activities. The project applicant may choose to submit Department of Toxic Substances Control documentation to East Bay Municipal Utilities District or other documentation as requested.

Response 2.5

The commenter states that if no soil or groundwater quality data exists, or the information supplied to East Bay Municipal Utility District by the project sponsor is insufficient, East Bay Municipal Utility District may require the project applicant to perform soil and groundwater sampling and analysis. Alternatively, the commenter states that East Bay Municipal Utility District may perform such sampling and analysis at the project sponsor’s expense. If evidence of contamination is discovered, work may be suspended until such contamination is adequately characterized and remediated to East Bay Municipal Utility District standards.

This comment pertains to construction protocol and coordination that must occur between the project applicant and East Bay Municipal Utility District in order for water services to be provided to the project. This comment does not question the analysis or conclusions of the Draft EIR. Therefore, no revisions to the Draft EIR are necessary in response to this comment. Because the East Bay Municipal Utility District would be the potable water service provider, the project applicant must by default provided the East Bay Municipal Utility District with requested materials and fees in order for potable water provisions.

Response 2.6

The commenter requests that the City include in its conditions of approval a requirement that the project comply with Assembly Bill 325, “Model Water Efficient Landscape Ordinance,” (Division 2, Title 23, California Code of Regulations, Chapter 2.7, Sections 490 through 495). The commenter states that East Bay Municipal Utility District cannot provide new or expanded water service unless all applicable water-efficiency measures described in the regulations are installed by the applicant.

This comment pertains to coordination of project design and landscaping that must occur between the project applicant and East Bay Municipal Utility District in order for water services to be provided to the project. This comment does not question the analysis or conclusions of the Draft EIR. Therefore, no revisions to the Draft EIR are necessary in response to this comment. However, for informational purposes, as described on page 2-13 of the Draft EIR, the proposed project would comply with water efficient landscape requirements and would plant species appropriate for the local climate that contribute to conserving outdoor water use. Additionally, like all projects in San Leandro, the proposed project must comply with federal, state, and local laws and regulatory requirements, including the California Code of Regulations.

LETTER 3

August 5, 2024

Ms. Cindy Lemaire
City of San Leandro
835 East 14th Street
San Leandro, California 94577

Transmitted via email: CLemaire@sanleandro.org

Subject: Draft Environmental Impact Report (DEIR) for Project PLN22-0039 (880 Doolittle Drive) Comments

Dear Ms. Lemaire:

The Port of Oakland (Port) appreciates this opportunity to comment on the Proposed Draft Environmental Impact Report (DEIR) for Project PLN22-0039 at 880 Doolittle Drive (Proposed Project). The Port provides the following comments for the city of San Leandro's (the City) consideration on the DEIR. 3.1

Renamed Metropolitan Oakland International Airport

The Port generates vital economic activity, community benefits and environmental innovation, as the Port decarbonizes its operations for a cleaner and greener future. Along with its partners, the Port supports 98,345 jobs in the region and $174 billion in annual economic activity. The Port oversees San Francisco Bay Oakland International Airport (OAK or Airport), the Oakland Seaport and nearly 20 miles of waterfront including Jack London Square and is a publicly owned utility. 3.2

On May 9, 2024, the Board of Port Commissioners renamed the "Metropolitan Oakland International Airport" to "San Francisco Bay Oakland International Airport". OAK is the main airport for the greater East Bay. Incorporation of the Airport's location on the "San Francisco Bay" into its formal name increases awareness of its geography while retaining the Airport's existing brand. The Port requests the new OAK name be reflected throughout the DEIR.

Alameda County Airport Land Use Commission (ALUC)

The Alameda County Airport Land Use Commission (ALUC) is a commission authorized under the provisions of the California Public Utilities Code, Sections 21670 et seq., and established to promote compatibility between airports and the land uses surrounding them. 3.3

The ALUC did not hold a hearing or provide a determination for the Proposed Project; therefore, no comments were issued by the ALUC. The Port requests removal of any references in the DEIR document that imply the ALUC approved or commented on this Proposed Project. The Port recommends the City coordinate with ALUC for a formal determination on the Proposed Project. 3.3

Additionally, the Port recommends the City coordinate with the Alameda County Community Development Agency, Planning Department, as an administrative department of the County on the Proposed Project.

OAK Airport Land Use Compatibility Planning (ALUCP)

The Airport Land Use Compatibility Plan (ALUCP) is the primary document used by the ALUC to promote compatibility between OAK and its environs. The intent of the ALUCP is to encourage compatibility between airports and the various land uses that surround them. There are four primary criteria for evaluating the compatibility of proposed land use in the Airport Influence Area (AIA): Airspace Protection Zones, Overflight Zones, Noise, and Safety. 3.4

Airspace Protection Zones

According to the OAK ALUCP, the Proposed Project must comply with safety zone guidelines and height restrictions to prevent any interference with airport operations. This includes ensuring that structures do not penetrate navigable airspace as defined by Federal Aviation Regulation (FAR) Part 77.

The Port conducted a preliminary airspace impact analysis of the proposed permanent structure height of 50 feet and the construction crawler crane with a maximum height of 161 feet as outlined in the DEIR. Our analysis indicates that the proposed height of the crawler crane would have adverse impacts on airport operations, specifically decreasing the capabilities of the North Field runways. This could affect OAK's ability to operate effectively. 3.5

These impacts will be present during the construction phase when cranes are in use. To mitigate these issues, the Port recommends limiting the height of construction equipment to a maximum of 80 feet. Additionally, the crane boom should be lowered when not in operation, during inclement weather, or upon request from the Airport.

The Port recommends continuous coordination between the City and the Port throughout the planning and development process to address any potential conflicts and interference with navigable airspace.

Overflight Zones

The Proposed Project is within the Airport Influence Area (AIA). The avigation easements required for the projects located within the AIA serve the purpose of Overflight Notifications and real estate disclosures. The Port recommends that a buyer notification plan be implemented so buyers are well informed of the overflights and associated noise prior to purchase. 3.6

As a condition of approval for development, the Port requests that the developer be required to record an avigation easement and grant notice, and that all developers and property managers be required to include disclosures to future buyers and lessees.

Safety

Land use safety compatibility criteria are developed to minimize the risks to people and property on the ground, as well as those people in an aircraft in the event of an accident or emergency landing occurring outside the airport boundary. The seven safety zones identified in the ALUCP are based on those depicted in the California Airport Land Use Compatibility Handbook (Handbook). The ALUCP lists compatible land uses within each safety zone. The safety zone criteria developed for a particular zone is largely a function of risk acceptability. Land uses (e.g., schools and hospitals) which, for a given proximity to the airport, are determined to represent unacceptable risks must be prohibited. Where the risks of a particular land use are considered significant but tolerable, establishment of restrictions may reduce the risk to an acceptable level. 3.7

The Proposed Project is in Airport Safety Zone 4 (Outer Approach / Departure Zones) and Zone 6 (Traffic Pattern Zone). The Port requests that the safety zones referenced in the DEIR are amended to these two safety zones and recommends the City review the ALUCP to determine the land use risks for both safety zones.

Hazardous Wildlife Attractants

FAA Advisory Circular 1550/5200/33B, Hazardous Wildlife Attractants on or Near Airports provides a comprehensive discussion of the land use practices that potentially attract hazardous wildlife and wildlife hazard management procedures. This Advisory Circular recommends that the FAA be notified as early as possible in the planning process of any land use changes that may attract wildlife within 5 statute miles of an airport. This will allow the FAA to perform a brief examination to determine if further investigation is warranted. The Port recommends the City notify FAA of the Proposed Project. 3.8

The Port appreciates the opportunity to comment on the City's DEIR and looks forward to working with the City to address the Port's comments. Please contact me with any follow-up questions and responses at cliang@portoakland.com or 510-627-1198. 3.9

Sincerely,

Colleen Liang
Director of Environmental Programs and Planning

CC:
Kristi McKenney, Chief Operating Officer
Matt Davis, Chief Public Engagement Officer
Craig Simon, Aviation Director
Joan Zatopek, Aviation Planning and Development Manager
Matt Davis, Airport Operations Manager, Airside
Susan Fizzell, Senior Aviation Project Manager
Sharon Grewal, Aviation Project Manager
Diego Gonzalez, Governmental Affairs Manager
Radiah Victor, Senior Port Strategic Planner

Letter 3

COMMENTER: Colleen Liang, Director of Environmental Programs and Planning, Port of Oakland

DATE: August 5, 2024

Response 3.1

The commenter notes their appreciation for the opportunity to comment on the Draft EIR.

This comment does not question the analysis or conclusions of the Draft EIR. Therefore, no revisions to the Draft EIR are necessary in response to this comment.

Response 3.2

The commenter briefly describes some of its benefits and duties and requests that the Draft EIR be revised to change the name of the Oakland International Airport to the San Francisco Bay Oakland International Airport.

The name of the airport used in the Draft EIR is not consequential or relevant to the analysis of the environmental impacts of the project. Likewise, the name of the airport is not relevant to mitigation measures identified in the Draft EIR to reduce potentially significant impacts of the proposed project. Therefore, no revisions to the Draft EIR are required in response to this comment.

Response 3.3

The commenter briefly describes the role of the Alameda County Airport Land Use Commission (ALUC) and states that the ALUC has held no hearings or provided no determinations for the proposed project. The commenter requests that the Draft EIR be revised to remove references implying the ALUC approved or commented on the proposed project. The commenter also recommends the City coordinate with the ALUC for a formal determination on the project.

The Draft EIR does not reference ALUC hearings on the project and does not imply approval by the ALUC. The City received a comment letter from the Alameda County Community Development Agency Planning Department in response to the Notice of Preparation of the Draft EIR. Comment letters on the Notice of Preparation are included in their entirety in Appendix A to the Draft EIR and summarized in Table 1-1 of the Draft EIR, which begins on page 1-2 of the Draft EIR. One role of the Alameda County Community Development Agency is the ALUC. In this way, with submittal of the comment on the Notice of Preparation of the Draft EIR, the ALUC has commented on the project.

The recommendation that the City coordinate with the ALUC for a formal determination on the project does not pertain to CEQA or the scope of analysis in the Draft EIR. However, for informational purposes, the project plans will be submitted to the ALUC for review. Additionally, the City has continued coordination with the commenter following receipt of this comment letter (see Response 3.5). Additionally, as described on page 84 of the Initial Study, which is Appendix A of the Draft EIR, the project is primarily within Airport Safety Zone 4. As discussed on page 84 of the Initial Study, warehouses and distribution facilities are compatible uses assuming employment does not exceed 100 employees per acre.

Because the Alameda County Community Development Agency did provide a comment to the City and mentioned their role as ALUC in the comment, no revisions to the Draft EIR are required in response to this comment.

Response 3.4

The commenter describes the Airport Land Use Compatibility Plan and summarizes its intent as encouraging compatibility between airports and the various land uses that surround them.

This comment does not question the analysis or conclusions of the Draft EIR. Therefore, no revisions to the Draft EIR are necessary in response to this comment. For informational purposes, the project site is within Airport Safety Zone 4 (Outer Approach/Departure Zone) and Airport Safety Zone 6 (Traffic Pattern Zone), based on Figure 3-4 of the Oakland International Airport Land Use Compatibility Plan. Page 84 of the Initial Study, which is Appendix A of the Draft EIR, states that the project is primarily within Airport Safety Zone 4. As discussed on page 84 of the Initial Study, warehouses and distribution facilities are compatible uses assuming employment does not exceed 100 employees per acre. Additionally, the project applicant submitted the project to the FAA, which determined that a proposed building height of 50 feet does not present a hazard to air navigation.

Response 3.5

The commenter states that project construction would require a crawler crane with a maximum height of 161 feet, which would have adverse impacts on airport operations. The commenter recommends limiting the height of construction equipment to a maximum of 80 feet and lowering the crane boom when not in operation, during inclement weather, or upon request from the Oakland International Airport.

The commenter correctly describes the maximum height of the crawl crane that would be required for construction of the proposed project. As described on page 2-14 of the Draft EIR, a crawler crane with a boom height of up to approximately 161 feet would be required for project construction. page 2-17 of the Draft EIR states that a ‘No Hazard Determination’ from the Federal Aviation Administration may be necessary for the use of project construction equipment exceeding 43 feet in height, which would include the crawler crane with a maximum height of 161 feet. The project applicant must obtain the necessary determinations from the Federal Aviation Administration pursuant to Federal Aviation Regulations Part 77. The project applicant must abide by all conditions of the determination, including equipment height limitations specified in the determination, as applicable.

No revisions to the Draft EIR are necessary in response to this comment. Please note, that the commenter provided a supplemental letter that addresses some of the topics described in Comment 3.5. This supplemental letter has been included as Letter 3b in this Final EIR. Please refer to Letter 3b for more information on project modifications the applicant has agreed to in response to coordination that occurred between the Port of Oakland, City of San Leandro, and project applicant following the end of the public comment period on the Draft EIR.

Response 3.6

The commenter states that the project site is within the Airport Influence Area (AIA) and that avigation easements are required for the purpose of overflight notifications and real estate disclosures. The commenter requests that the applicant be required to record an avigation easement and recommends that a buyer notification plan be implemented to inform buyers of the overflights and associated noise prior to purchase.

An avigation easement is a legal document granted by the property owner, signifying that notification was given regarding the airport in the vicinity, that the airport produces noise and annoyances, and that it is accepted. The easement is recorded with the County Clerk-Recorder and is attached to a property deed. According to Figure 3-6 of the Oakland International Airport Land Use Compatibility Plan (Alameda County Community Development Agency 2010), the project site is within the avigation easement zone of the Oakland International Airport. As stated on page 3-23 of the Airport Land Use Compatibility Plan, avigation easements should be dedicated to the airport owner as a condition for any discretionary local approval of any residential or non-residential development within the area indicated on Figure 3-6. Accordingly, although not required as CEQA mitigation, the City will include a condition of approval that the project applicant dedicate an avigation easement to the owner of the Oakland International Airport.

Neither the City nor the project applicant are responsible for the actions of potential future buyers or tenants of the project site. Potential future buyers are responsible for conducting due diligence at their discretion before purchasing property, including the project site. The avigation easement for the project site would be public information recorded at the Alameda County Clerk and attached to the property deed. According to the Oakland International Airport Land Use Compatibility Plan, neither a separate overflight easement nor a separate real estate disclosure is required for properties for which an avigation easement is required.

Response 3.7

The commenter requests that the Draft EIR be revised to describe the project site as within Airport Safety Zone 4 and Airport Safety Zone 6. The commenter also recommends the City review the Airport Land Use Compatibility Plan to determine land use risks for these two zones.

The commenter is correct that the project site is within Airport Safety Zone 4 (Outer Approach/Departure Zone) and Airport Safety Zone 6 (Traffic Pattern Zone), based on Figure 3-4 of the Oakland International Airport Land Use Compatibility Plan. Page 84 of the Initial Study, which is Appendix A of the Draft EIR, states that the project is primarily within Airport Safety Zone 4. As discussed on page 84 of the Initial Study, warehouses and distribution facilities are compatible uses assuming employment does not exceed 100 employees per acre. Additionally, the project applicant submitted the project to the FAA, who determined that a proposed building height of 50 feet does not present a hazard to air navigation. Therefore, the Initial Study determined that the project would not result in a safety hazard or excessive noise for people working in the project area as a result of airport operations, and impacts would be less than significant.

Safety risks associated with Airport Safety Zone 6 are not discussed specifically in the Draft EIR (including the Initial Study) because Airport Safety Zone 6 is generally less restrictive than Airport Safety Zone 4, and the project would be compatible with Zone 4. However, for informational purposes, Airport Safety Zone 6 has no limit on maximum nonresidential intensity (i.e., people per acre), as shown in Table 3-2 of the Oakland International Airport Land Use Compatibility Plan. Table 3-2 indicates that warehouses, like the proposed project, are a fully compatible land use within Airport Safety Zone 4.

To provide clarification as requested by the commenter, page 84 of the Initial Study is revised as follows:

> The project site is approximately 2.5 miles east of Oakland International Airport and 6.6 miles north of the Hayward Executive Airport. The project site is within the Oakland Airport Influence Area ~~but is not within a noise or safety compatibility zone of the Oakland Airport. The project site~~ and is located primarily in the Outer Approach/Departure Zone (Zone 4), where warehouses and distribution facilities are a compatible use assuming employment does not exceed 100 employees per acre (Alameda County Community Development Agency 2010; Alameda County Airport Land Use Commission 2010). The project site is also partially within the Traffic Pattern Zone (Zone 6). Warehouses are a compatible land use within Zone 6 with no limits on employment density.

This clarification does not change the less than significant determination for airport safety impacts on page 84 of the Initial Study. No further revisions to the Draft EIR are required in response to this comment.

Response 3.8

The commenter cites a Federal Aviation Administration Advisory Circular recommending that the Federal Aviation Administration be notified of land use changes that may attract wildlife within 5 statute miles of an airport. The commenter recommends the City notify the Federal Aviation Administration of the proposed project.

As described on page 2-8 of the Draft EIR, the proposed project would include construction of a new warehouse with supporting office space. These uses are consistent with land uses that have occurred on the project site in the past. Additionally, warehouse and office uses generally do not attract wildlife because they do not generate substantial amounts of food waste, but this can vary depending on specific tenants of the warehouse. Nonetheless, the Federal Aviation Administrative has been informed of the project. For example, as described on page 2-17 of the Draft EIR, the project applicant submitted the project to the Federal Aviation Administration as part of their request for a No Hazard Determination on the maximum building height. The City has documentation of this submittal in the form of the No Hazard Determination, which is on file at City Hall. For convenience, the Draft EIR is revised to include the No Hazard Determination as an appendix. Specifically, the Draft EIR is revised to add Appendix G, Federal Aviation Administration No Hazard Determination, which contains a copy of the No Hazard Determination. The inclusion of the No Hazard Determination as an appendix is not new information, because the No Hazard Determination has been available to the public through the Federal Aviation Administration No Hazard Determination Database throughout the project CEQA process. Accordingly, no further revisions to the Draft EIR are required in response to this comment.

Response 3.9

The commenter provides a point-of-contact if the City has questions regarding their comment letter. This comment is noted.

PORT OF OAKLAND

October 21, 2024

Ms. Cindy Lemaire, AICP, CNU-A
Senior Planner
City of San Leandro
835 East 14th Street
San Leandro, California 94577

Transmitted via email: CLemaire@sanleandro.org

Subject: Draft Environmental Impact Report (DEIR) for Project PLN22-0039 (880 Doolittle Drive) – Port Revised Comments

Dear Ms. Lemaire:

The Port of Oakland (Port) appreciates this opportunity to comment on the Draft Environmental Impact Report (EIR) for Project PLN22-0039 at 880 Doolittle Drive (proposed project). On August 5, 2024, the Port submitted comments on the DEIR. Subsequently, the Port and the City met to address the Port's comments and the Port provides the following revised comments for the City's consideration. This letter supersedes the letter submitted on August 5, 2024 and conditions emailed on September 27, 2024.

Renamed Metropolitan Oakland International Airport

The Port generates vital economic activity, community benefits, and environmental innovation, as the Port decarbonizes its operations for a cleaner and greener future. Along with its partners, the Port supports 98,345 jobs in the region and $174 billion in annual economic activity. The Port oversees San Francisco Bay Oakland International Airport (OAK or Airport), the Oakland Seaport and nearly 20 miles of waterfront including Jack London Square and is a publicly owned utility.

On May 9, 2024, the Board of Port Commissioners renamed the "Metropolitan Oakland International Airport" to "San Francisco Bay Oakland International Airport". OAK is the main airport for the greater East Bay. Incorporation of the Airport's location on the "San Francisco Bay" into its formal name increases awareness of its geography while retaining the Airport's existing brand. The Port requests the new OAK name be reflected throughout the EIR.

Alameda County Airport Land Use Commission (ALUC)

The Alameda County Airport Land Use Commission (ALUC) is a commission authorized under the provisions of the California Public Utilities Code, Sections 21670 et seq., and established to promote compatibility between airports and the land uses surrounding them.

The ALUC did not hold a hearing for the proposed project; however, an administrative review was performed on a similar project description and comments were provided to the applicant on November 13, 2020 by Alameda County.

The Port recommends the City coordinate with the Alameda County Community Development Agency, Planning Department, as an administrative department of Alameda County on the proposed project.

OAK Airport Land Use Compatibility Planning (ALUCP)

The Airport Land Use Compatibility Plan (ALUCP) is the primary document used by the ALUC to promote compatibility between OAK and its environs. The intent of the ALUCP is to encourage compatibility between airports and the various land uses that surround them. There are four primary criteria for evaluating the compatibility of proposed land use in the Airport Influence Area (AIA): Airspace Protection Zones, Overflight Zones, Noise, and Safety. The proposed project is within the AIA.

<u>Airspace Protection Zones</u>

According to the OAK ALUCP, the proposed project must comply with safety zone guidelines and height restrictions to prevent any interference with airport operations. This includes ensuring that structures do not penetrate navigable airspace as defined by Federal Aviation Administration (FAA) Federal Aviation Regulation (FAR) Part 77.

The Port conducted a preliminary airspace impact analysis of the proposed permanent structure height of 50 feet and the construction equipment/crane with a maximum height of 161 feet as outlined in the DEIR. The Port's analysis indicated that the proposed height of the construction equipment/crane would have adverse impacts on airport operations, specifically decreasing the capabilities of the North Field runways, which could limit OAK's ability to operate.

After the Port submitted the August 24, 2024 DEIR comments, the Port, City, and applicant discussed the construction equipment/crane height and the approximate project schedule. The applicant refined the maximum construction equipment/crane height to 140 feet for a duration of approximately three (3) weeks. The reference height and duration are acceptable to the Port subject to FAR Part 77 and the conditions outlined below.

FAA determination on whether the proposed project would be a hazard to air navigation is required to assess permanent impacts from the structure as well as for temporary impacts during construction. The applicant is required to submit a completed FAA Form 7460–1, Notice of Proposed Construction or Alteration, to the FAA for temporary construction and permanent structure. The Port is available to review Form 7460-1 before the applicant/contractor submits to the FAA for its determination. The applicant/contractor will be required to meet all resulting conditions and requirements in the FAA's determination stating whether the proposed project would be a hazard to air navigation, which may include, but not be limited to, the following:

- The applicant/contractor is required to notify the OAK Airport Operations Manager and FAA Airport Traffic Control Tower (ATCT) at least five (5) business days prior to bringing the construction equipment/crane to the site. Contact OAK Airport Operations at 510-563-3361 to notify the Airport Operations Manager and ATCT.

- The applicant/contractor is required to coordinate all associated activities with the Airport Operations Manager and ATCT to ensure the appropriate local NOTAM's are issued.

- At the Airport Operation Manager or ATCT direction, the applicant/contractor is required to lower the construction equipment/crane when not in operation or when weather is below FAA Visual Flight Rules (VFR) minimums.

- Additional coordination with and mitigation by the applicant/contractor may be required if it is determined that construction equipment/crane activity is impacting the Airport's radar system.

- Applicant/contractor must notify the OAK Airport Operations Manager and ATCT at least five (5) business days before the construction equipment/crane is permanently lowered and removed from the site.

- The applicant/contractor is required to lower and/or illuminate the crane during nighttime hours (between sunset and sunrise), in accordance with applicable FAA Advisory Circulars.

In addition to conditions and requirements in the FAA's determination of air navigation hazards, the Port requests the applicant/contractor implement the following additional measures:

- At the Airport Operations Manager or ATCT direction, the applicant/contractor to lower the construction equipment/crane during adverse weather conditions or below VFR minimums that impact airport operations.

- Applicant/contractor to provide to the Port a primary and secondary contact person who is available 24-hours/day and is authorized to address any issue regarding construction equipment/crane height, during period(s) of construction equipment/crane deployment.

- Applicant/contractor to deploy construction equipment/crane only as needed and preferably during periods of good visibility, above VFR minimums, as determined by the Airport Operations Manager or ATCT, at a height not to exceed 140' to avoid any impacts to airport operations.

The Port requests continuous coordination between the City and the Port throughout the planning and development process to address any potential conflicts and interference with navigable airspace.

<u>Overflight Zones</u>

Avigation easements are required for projects located within the AIA and serve the purpose of Overflight Notifications and real estate disclosures. The Port recommends that a buyer notification plan be implemented so buyers are well informed of the overflights and associated noise prior to purchase.

As a condition of approval for development, the Port requests that the developer be required to record an avigation easement and grant notice, and that all developers and property managers be required to include disclosures to future buyers and lessees.

Safety

Land use safety compatibility criteria are developed to minimize the risks to people and property on the ground, as well as those people in an aircraft in the event of an accident or emergency landing occurring outside the airport boundary. The seven safety zones identified in the ALUCP are based on those depicted in the California Airport Land Use Compatibility Handbook (Handbook). The ALUCP lists compatible land uses within each safety zone. The safety zone criteria developed for a particular zone is largely a function of risk acceptability. Land uses (e.g., schools and hospitals) which, for a given proximity to the airport, are determined to represent unacceptable risks must be prohibited. Where the risks of a particular land use are considered significant but tolerable, establishment of restrictions may reduce the risk to an acceptable level.

The proposed project is in Airport Safety Zone 4 (Outer Approach / Departure Zones) and Zone 6 (Traffic Pattern Zone). The Port requests that the safety zones referenced in the DEIR be amended to Safety Zones 4 and 6, and recommends the City review the ALUCP to determine the land use risks for both safety zones.

Hazardous Wildlife Attractants

FAA Advisory Circular 150/5200-33C, Hazardous Wildlife Attractants on or Near Airports provides a comprehensive discussion of the land use practices that potentially attract hazardous wildlife and wildlife hazard management procedures. This Advisory Circular recommends that the FAA be notified as early as possible in the planning process of any land use changes that may attract wildlife within 5 statute miles of an airport. This will allow the FAA to perform a brief examination to determine if further investigation is warranted. The Port recommends the City notify FAA of the proposed project.

The Port appreciates the opportunity to comment on the City's DEIR and looks forward to working with the City to address the Port's comments. Please contact me with any follow-up questions and responses at cliang@portoakland.com or 510-627-1198.

Sincerely,

Colleen Liang
Director of Environmental Programs and Planning

CC:
Kristi McKenney, Chief Operating Officer
Matt Davis, Chief Public Engagement Officer
Craig Simon, Aviation Director
Joan Zatopek, Aviation Planning and Development Manager
Matt Davis, Airport Operations Manager, Airside
Susan Fizzell, Senior Aviation Project Manager
Sharon Grewal, AICP, PMP, Associate Aviation Project Manager
Diego Gonzalez, Governmental Affairs Manager
Radiah Victor, Senior Port Strategic Planner

Letter 3b

COMMENTER: Colleen Liang, Director of Environmental Programs and Planning, Port of Oakland

DATE: October 21, 2024

The commenter submitted Letter 3b in response to coordination between the Port of Oakland, City of San Leandro, and the project applicant that occurred following closure of the comment period on the Draft EIR. The commenter requests that Letter 3b supersede Letter 3 and an email the commenter sent to the City on September 27, 2024. Rather than having Letter 3b supersede Letter 3 or other input from the commenter, the City has elected to consider Letter 3b a supplement to Letter 3.

Much of Letter 3b is identical or nearly identical to Letter 3. For example, Letter 3b contains Comment 3.2 from Letter 3. Therefore, Response 3.2 is an applicable response to Letter 3b, also. This is the case for most of the comments in Letter 3b and earlier responses to Letter 3. Therefore, the remainder of this response to Letter 3b addresses only comments that are new or different from those provided in Letter 3.

The new or revised comments in Letter 3b pertain to the coordination that occurred between the Port of Oakland, City of San Leandro, and the project applicant after the closure of the public comment period on the Draft EIR. Specifically, Letter 3b contains a description or list of construction practices that project applicant has agreed to implement as part of the proposed project. These practices that the project applicant have agreed to implement include:

- Reducing the maximum height of the crane from 161 feet to 140 feet.
- Limiting the use of the crane to approximately 3 weeks.
- Notifying the Operations Manager of the Oakland International Airport and the FAA Airport Traffic Control Tower at least five days in advance of bringing the construction crane to the project site.
- Coordinating all associated activities with the Airport Operations Manager and Airport Traffic Control Tower to ensure the appropriate local Notice to Air Missions are issued.
- Lowering the construction equipment/crane when not in operation or when weather is below FAA Visual Flight Rules (VFR) minimums, as directed by the Airport Operations Manager or Airport Traffic Control Tower.
- Implementing additional coordination and crane modifications as determined by either the Airport Operations Manager or Airport Traffic Control Tower should either determine the crane is impacting the airport's radar system.
- Notifying the Airport Operations Manager and Airport Traffic Control Tower at least five business days before the construction equipment/crane is permanently lowered and removed from the site.
- Lowering and/or illuminating the crane during nighttime hours (between sunset and sunrise), in accordance with applicable FAA Advisory Circulars.
- At the Airport Operations Manager or Airport Traffic Control Tower direction, lowering the construction equipment/crane during adverse weather conditions or below VFR minimums that impact airport operations.
- Providing the Port of Oakland with a primary and secondary contact person who is available 24-hours/day and is authorized to address any issue regarding construction equipment/crane height, during the construction period/crane deployment.

- Deploying the construction equipment/crane only as needed and preferably during periods of good visibility, above VFR minimums, as determined by the Airport Operations Manager or Air Traffic Control Tower, at a height not to exceed 140 feet.

The applicant has agreed to implement the construction and crane operations listed above into the project. These modifications to construction activities would result in no new physical impacts to the environment. Therefore, no revisions to the Draft EIR are required in response to this comment, other than revisions that may be described in responses to Letter 3.

Advocates for the Environment

A non-profit public-interest law firm
and environmental advocacy organization

July 29, 2024

Cindy Lemaire
Senior Planner
City of San Leandro
835 East 14th Street
San Leandro, CA 94577

Via U.S. Mail and email to clemaire@sanleandro.org

Re: Comments on Draft Environmental Impact Report for 800 Doolittle Drive Industrial Project, SCH No. 2023110597

Dear Ms. Lemaire:

Advocates for the Environment submits the comments in this letter regarding the Draft Environmental Impact Report (**DEIR**) for the 800 Doolittle Drive Industrial Project (**Project**). The Project Site is located near Davis Street and Doolittle Drive in the City of San Leandro (**City**). The Project proposes to develop the 14.14-acre Project Site by constructing a 244,573 square-foot warehouse. We have reviewed the DEIR prepared in June 2024 and submit comments regarding the sufficiency of the DEIR's Greenhouse-Gas (**GHG**) analysis under the California Environmental Quality Act (**CEQA**). 4.1

The City Should Require the Project to be Net-Zero

Given the current regulatory context and technological advancements, a net-zero significance threshold is feasible and extensively supportable. GHG emissions from buildings, including indirect emissions from offsite generation of electricity, direct emissions produced onsite, and from construction with cement and steel, amounted to 21% of global GHG emissions in 2019. (IPCC Sixth Assessment Report, Climate Change 2022, WGIII, Mitigation of Climate Change, p. 9-4.) This is a considerable portion of global GHG emissions. It is much more affordable to construct new building projects to be net-zero than to obtain the same level of GHG reductions by expensively retrofitting older buildings to comply with climate change regulations. Climate damages will keep increasing until we reach net zero GHG emissions, and there is a California state policy requiring the state to be net-zero by 2045. It therefore is economically unsound to construct new buildings that are not net-zero. 4.2

Environmental groups have achieved tremendous outcomes by litigation under CEQA. Two of the largest mixed-use development projects in the history of California, Newhall Ranch (now FivePoint Valencia), and Centennial (part of Tejon Ranch) decided to move forward as net-zero communities after losing CEQA lawsuits to environmental groups. The ability for

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these large projects to become net-zero indicates that it is achievable, even for large-scale developments. The Applicant for this Project should do the same.

We urge the City to adopt net-zero as the GHG significance threshold for this project. This threshold is well-supported by plans for the reduction of GHG emissions in California, and particularly the CARB Climate Change Scoping Plans. The CARB 2017 Scoping Plan states that "achieving no net additional increase in GHG emissions, resulting in no contribution to GHG impacts, is an appropriate overall objective for new development." (CARB 2017 Scoping Plan, p. 101.) Additionally, the CARB 2022 Scoping Plan reaffirms the necessity of a net zero target by expressing: "it is clear that California must transition away from fossil fuels to zero-emission technologies with all possible speed … in order to meet our GHG and air quality targets." (CARB 2022 Scoping Plan, p. 184.) CARB further encourages a net-zero threshold in its strategies for local actions in Appendix D to the 2022 Scoping Plan. (CARB 2022 Scoping Plan, Appendix D p. 24-26.) 4.2

Moving this Project forward as a net-zero project would not only be the right thing for the City to do, but also would also help protect the City and the Applicant from CEQA GHG litigation.

GHG Mitigation is Insufficient under CEQA

The City did not quantify the projects emissions. The City adopted a significance threshold based on Appendix G of the CEQA Guidelines. Based on this threshold, the City concluded the Project would have significant GHG emissions. The City did not suggest any mitigation measures to reduce this significant GHG impact, claiming "Because there is no feasible mitigation to reduce significant impacts resulting from GHG emissions of the project, impacts would remain significant and unavoidable." (DEIR, p. 4.1-13.) 4.3

Despite the availability of feasible GHG mitigation measures, the DEIR declared that not a single mitigation measure would be feasible, without analyzing or rejecting particular measures. The DEIR also declared that the Project's mitigated emissions were unavoidable, claiming the City is unable to implement mitigation to reduce this significant impact because it cannot require the project applicant to eliminate natural gas from the proposed project. (**DEIR**, p. 4.1-9.) However, because this conclusion is not supported by substantial evidence, the DEIR should have included more mitigation to reduce the Project's GHG emissions to the extent required by CEQA. While the Energy Policy and Conservation Act (**EPCA**) may preempt state law that conflicts with it, it doesn't prevent the City from requiring the applicant to omit natural gas infrastructure as a mitigation measure. Even if the elimination of natural gas from the Project were not available as a mitigation measure, other mitigation measures are available. CEQA does not require that mitigation targets the specific source of GHG emissions, only that the project's cumulative impact is fully mitigated. 4.4 4.5 4.6

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Infeasibility Finding Lacks Substantial Evidence

The conclusion that the Project will not be able to achieve any mitigation is not supported with substantial evidence. The DEIR should have proposed mitigation measures to be applied to the maximum-feasible extent in order to justify the conclusion that the Project's GHG impact would be unavoidable due to lack of feasibility of mitigation. The DEIR does not identify a single mitigation measure, beyond the Project features, nor explain why any mitigation whatsoever would be infeasible. 4.7

It Is Feasible to Adopt Mitigation Measures

CEQA places the burden of proof of the infeasibility of mitigation on the City when it concludes the Project will have a significant and unavoidable impact. The City did not analyze any mitigation measures when concluding that the Project's GHG impact would be unavoidable. This not only fails to analyze and disclose adequate reasoning, to the detriment of the public and decision-makers, but also does not amount to substantial evidence to support the conclusion that the Project's impact would be significant and unavoidable. 4.8

The City and Applicant together can commit to design and technology specifications that reduce emissions, especially in the heavy-duty truck and transportation vehicle fleet. Further, the City can require the applicant to enter a contract with future tenants to use zero-emission commercial vehicles upon reasonable availability and maintain a charging system for the vehicle fleet that is powered by solar panels on the Project site. Thus, the conclusion that further mitigation is infeasible was not supported by substantial evidence. 4.9

The Project's GHG Impacts Must be Fully Mitigated

CEQA requires that the Project include fair-share mitigation for all significant cumulative impacts. (*Napa Citizens for Honest Gov't v. Napa County Board of Supervisors* (2001) 91 Cal.App.4th 342, 364.) Here, this means mitigation of the full extent of the Project's GHG impacts. The DEIR claims that no mitigation measures are feasible. But that conclusion is incorrect, and not supported by substantial evidence. 4.10

The amount of GHG emissions that comprises the Project's fair share is unclear. The DEIR acknowledges that the Project would result in a significant and unavoidable impact on GHG emissions. However, it did not quantify the Projects MTCO2e emissions, nor did it identify the projects reasonable life span. As a result, the starting point from which to subtract the effect of additional non-offset mitigation measures, before implementing offset purchases is unknown. 4.11

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Operational Emissions Reductions are Feasible

There are several mitigation measures that are feasible, including renewable energy systems and batteries to power the facility during non-peak hours, solar water heaters, automatic light switches, among many other mitigation strategies that can be incorporated in the project as design features or as mitigation measures. Such features could be adopted individually or as part of a comprehensive goal of sustainable building certification, such as Leadership and Energy and Environmental Design (**LEED**), that extends further beyond CALGreen requirements.

Solar panel installation or incorporating renewable energy production on-site is also a feasible mitigation measure. The DEIR indicates that the Project will comply with Title 24 requirements. (DEIR, p. 4.1-11.) However, Title 24 mandates only that a minimum of 15 percent of the roof area be solar-ready. Extending this requirement to cover the maximum available surface area, rather than just the minimum 15 percent required would be feasible. Additionally, installing solar panels across the entire available roof surface would also be a feasible measure. Having solar panels capable of offsetting 100% of the buildings' energy demands would enhance the effectiveness and decrease GHG emissions overall. 4.12

Likewise, the DEIR specifies the installation of charging stations required by Title 24, in this case, 21 electric vehicle (**EV**) charging stations. (DEIR, p. 4.1-11.) There is no evidence that it would be infeasible to install more charging stations beyond the proposed 21 stations.

Overall, there are more options available to mitigate emissions to the full extent of project emissions.

Offsets Are Feasible

After requiring operational emissions reductions to the maximum feasible extent, the City could also require the Applicant to purchase offsets for the Project's remaining GHG emissions. The City did not provide any evidence for why offsets would be infeasible. Offsets are acceptable mitigation measures under CEQA (See CEQA Guidelines § 15126.4 (c)(3).) Overall, there are more options available to mitigate emissions to the full extent of project emissions, and the City failed to acknowledge or implement many mitigation measures that are feasible and could help reduce the Project's GHG impact to the fair share extent. 4.13

Conclusion

The DEIR fails to require all feasible mitigation, despite concluding that the significant GHG impact will be unavoidable. The lead agency has not met its burden of showing that such measures are infeasible, and therefore the DEIR should be amended to reflect all feasible 4.14

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mitigation to the fair-share extent. Please put me on the interest list to receive updates about the progress of this Project. We make this request under Public Resources Code, section 21092.2. 4.15

Sincerely,

Dean Wallraff, Attorney at Law
Executive Director, Advocates for the Environment

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Letter 4

COMMENTER: Dean Wallraff, Executive Director, Advocates for the Environment

DATE: July 29, 2024

Response 4.1

The commenter states their understanding of the proposed project in the form of a summary and indicates that it is providing comments pertaining to the analysis of greenhouse gas (GHG) impacts in the Draft EIR.

The commenter's understanding of the proposed project is an accurate summary of the project as proposed and evaluated in the Draft EIR. This comment is noted and does not require revisions to the Draft EIR.

Response 4.2

The commenter suggests that the City should adopt net-zero as the GHG significance threshold for the project. The commenter references documents and policies that they suggest support net-zero as the significance threshold, including the California Air Resources Board (CARB) 2017 Scoping Plan, CARB 2022 Scoping Plan, and an unspecified California state policy.

As described on page 32 of the Initial Study, which is included as Appendix A to the Draft EIR, the project site is located in the San Francisco Bay Area Air Basin, which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). As described on page 4.1-5 of the Draft EIR, the BAAQMD Board of Directors adopted its Bay California Environmental Quality Act Air Quality Guidelines in 2022. The adopted document is commonly referred to as the BAAQMD 2022 CEQA Guidelines, including throughout the Draft EIR. As described on page 4.1-5 of the Draft EIR, the BAAQMD 2022 CEQA Guidelines include nonbinding recommendations for how a lead agency can evaluate, measure, and mitigate air quality and climate impacts generated from land use construction and operational activities. Chapter 6 of the BAAQMD 2022 CEQA Guidelines provides guidance on applying the BAAQMD thresholds of significance for climate impacts from GHG emissions to projects, including land use and stationary source projects. Because the project site is in the San Francisco Bay Area Air Basin, the City elected to use the BAAQMD 2022 CEQA Guidelines guidance on applying the BAAQMD thresholds of significance, as described on pages 4.1-6 and 4.1-7 of the Draft EIR.

As described in detail on pages 6-3 and 6-4 of the BAAQMD 2022 CEQA Guidelines and summarized on pages 4.1-6 and 4.1-7 of the Draft EIR, for a project to have a less-than-significant impact related to operational GHG emissions, it must, at a minimum, incorporate certain project design elements or be consistent with a local GHG reduction strategy that meets *State CEQA Guidelines* Section 15183.5(b) requirements. As described on page 4.1-7 of the Draft EIR, while the City has a qualified GHG reduction strategy, it chose to evaluate the significance of impacts based on whether the project incorporates the project design elements specified by BAAQMD. Pursuant to the BAAQMD 2022 CEQA Guidelines, the project design elements required for operational GHG impacts to be considered less than consistent are listed on page 4.1-7 of the Draft EIR, and include

Buildings

- The project will not include natural gas appliances or natural gas plumbing (in both residential and non-residential development).

- The project will not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the *State CEQA Guidelines*.

Transportation

- Achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA:
    - Residential projects: 15 percent below the existing VMT per capita
    - Office projects: 15 percent below the existing VMT per employee
    - Retail projects: no net increase in existing VMT
- Achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.

These design criteria do not specify that projects must be designed to be net-zero GHG emissions in order for operational GHG emissions impacts to be determined less than significant. Instead, as specified on page 6-4 of the BAAQMD 2022 CEQA Guidelines, if the project includes, at a minimum, these design elements, there would be a less-than-significant climate impact related to GHG emissions, and the project would not be likely to conflict with applicable initiatives to reduce GHG emissions, including CARB scoping plans and Executive Order B-55-18. The rationale, justification, and substantial evidence supporting this conclusion can be found in Appendix B of the BAAQMD 2022 CEQA Guidelines. Briefly, as described therein, the BAAQMD is now focused on achieving the state's longer-term goals of carbon neutrality by 2045, consistent with Executive Order B-55-18. Moreover, the Supreme Court of California has recognized the necessity and appropriateness of using these longer-term goals as the touchstone for the CEQA analysis. As it held in Cleveland National Forest Foundation v. SANDAG, these longer-term goals express "what scientific research has determined to be the level of emissions reductions necessary to stabilize the climate by midcentury and thereby avoid catastrophic effects of climate change" (Cleveland National Forest Foundation v. SANDAG [2017] 3 Cal.5th 497, 513).

Page 6-4 of the BAAQMD 2022 CEQA Guidelines states that for the building sector to achieve carbon neutrality (i.e. net-zero), natural gas usage will need to be phased out and replaced with electricity usage, and electrical generation will need to shift to 100-percent carbon-free sources. Therefore, using the project design criteria above, which includes evaluating whether the project would use natural gas, is an appropriate method of assessing if the project is helping the state achieve carbon neutrality. The City need not adopt a specific net-zero GHG emission significance threshold for the proposed project and Draft EIR, because the BAAQMD already provides GHG significance thresholds that are aligned with the state's carbon neutrality goals and these thresholds are used in the Draft EIR. For this reason, no revisions to the Draft EIR are required in response to this comment. Nevertheless, the commenter's suggestion that the City adopt a new or different CEQA threshold for GHG emissions for review of future projects is noted and will be forwarded to the decision makers for their consideration.

Response 4.3

The commenter states that the City did not quantify the GHG emissions of the project and determined that GHG impacts of the project would be significant based on thresholds provided in Appendix G of the *State CEQA Guidelines*. The commenter suggests that the Draft EIR provides no mitigation measures to reduce this impact, which would remain significant and unavoidable.

The commenter's summary of the analysis of project impacts related to GHG emissions in the Draft EIR is mostly accurate. However, as described on page 4.1-7 of the Draft EIR, the City used significance thresholds adopted by the BAAQMD to evaluate GHG impacts as they relate to checklist questions provided in Appendix G of the *State CEQA Guidelines* (see Response 4.2).

The commenter is correct in stating that the City did not quantify the GHG emissions of the project. The BAAQMD significance thresholds do not require or call for the quantification of GHG emissions. Instead, as detailed in Response 4.2 above, the significance thresholds state that for a project to have a less-than-significant impact related to operational GHG emissions, it must, at a minimum, incorporate certain project design elements or be consistent with a local GHG reduction strategy that meets *State CEQA Guidelines* Section 15183.5(b) requirements. For this reason, consistent with BAAQMD 2022 CEQA Guidelines, the City did not quantify the GHG emissions of the project. Instead, the City evaluated the potential GHG impacts of the project using the BAAQMD significance thresholds for determining if the project incorporates the required design elements.

The commenter is correct that the proposed project would have significant and unavoidable GHG impacts. As stated in bold text on page 4.1-8 of the Draft EIR, the proposed project would have potential to contribute to the long-term generation of GHG emissions due to the provision of natural gas plumbing, and impacts would be significant and unavoidable. Page 4.1-9 of the Draft EIR states that there is no feasible mitigation to reduce this potentially significant impact. Accordingly, no revisions to the Draft EIR are required in response to this comment.

Response 4.4

The commenter opines that there are feasible mitigation measures available to reduce the significant GHG impacts of the project, but the EIR states that no mitigation would be feasible without analyzing or rejecting particular measures.

The commenter does not suggest specific mitigation measures to reduce the GHG impacts of the project in this comment. The commenter does suggest mitigation measures later in the comment letter and individual responses are provided to those in later responses. Specifically, please refer to Response 4.7, Response 4.8, and Response 4.9.

The commenter's suggestion that the EIR states that no mitigation would be feasible to reduce the GHG impacts of the project without analyzing or rejecting measures is not accurate. As described on page 4.1-8, the potentially significant GHG impact of the project is the result of new natural gas plumbing within the proposed building (see Response 4.2 and Response 4.6). The most straightforward measure to reduce the significance of this impact is to eliminate the natural gas plumbing from the project. The infeasibility of mandating such a mitigation measure is discussed on page 4.1-9 of the Draft EIR. No other known mitigation is available. The Draft EIR concludes that no other mitigation is available to eliminate the use of natural gas in the proposed project. "CEQA does not require analysis of every imaginable alternative or mitigation measure; its concern is with *feasible* means of reducing environmental effects." (San Diego Citizenry Group v. County of San Diego (2013) 219 Cal.App.4th 1, 16).

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Because this comment does not specify additional mitigation measures to eliminate natural gas plumbing from the project and reduce the resultant significant GHG impact from provision of this plumbing, no revisions to the Draft EIR are required in response to this comment.

Response 4.5

The commenter opines that the Draft EIR concludes the City is unable to eliminate natural gas from the project through mitigation measures without providing substantial evidence supporting this conclusion. The commenter suggests that the Energy Policy and Conservation Act (EPCA) may preempt state law conflicting with it, but it does not prevent the City from including mitigation measures requiring the applicant to omit natural gas from the project.

Page 4.1-8 of the Draft EIR provides a discussion of why the City is unable to eliminate natural gas from the project through a mitigation measure or otherwise. This discussion on page 4.1-8 lays out the legal framework for why such mitigation is not possible, and therefore constitutes substantial evidence supporting the conclusion that the City cannot eliminate natural gas as mitigation measures. As described on page 4.1-8 of the Draft EIR, the City is unable to implement this type of mitigation based on a recent court case titled California Restaurant Association v. City of Berkeley. Briefly, in this case, the California Restaurant Association sued Berkeley in the U.S. District Court for the Northern District of California, arguing among other things that the federal EPCA preempted the City's ordinance banning natural gas in new buildings. The District Court dismissed the California Restaurant Association's challenge. However, the Ninth Circuit reversed the District Court, holding that EPCA expressly preempts state and local regulations concerning the energy use of many natural gas appliances. The Ninth Circuit concluded that EPCA preempted Berkeley's ban of natural gas, because it prohibited the onsite installation of natural gas infrastructure necessary to support natural gas appliances covered under the EPCA.

Though the commenter appears to disagree with the City's legal interpretation of the *California Restaurant Association* case, the City is not required to impose mitigation that it believes may not be legally enforceable. "Mitigation measures that cannot be legally imposed or enforced need not be proposed or analyzed." (*San Diego Citizenry Group v. County of San Diego* (2013) 219 Cal.App.4th 1, 16). The City of San Leandro cannot require the project applicant to eliminate natural gas from the proposed project because this would also prohibit the onsite installation of natural gas infrastructure necessary to support natural gas appliances covered under the EPCA.

The commenter provides no further detail on or explanation of why they feel mitigation measures eliminating natural gas from the project would be feasible despite the Ninth Circuit conclusions regarding the EPCA. Accordingly, no revisions to the Draft EIR are required in response to this comment.

Response 4.6

The commenter suggests there are other mitigation measures available to reduce the significant GHG impacts of the project besides eliminating natural gas, indicating that CEQA does not require mitigation to target the specific source of GHG emissions, only that the project's cumulative impact is fully mitigated.

As discussed in Response 4.2, above, the Draft EIR uses significance thresholds adopted by the BAAQMD in 2022 that require projects to incorporate certain project design elements for GHG impacts to be less than significant. One of these design elements is that the project must not include natural gas appliances or natural gas plumbing (see Draft EIR page 4.1-7 and Response 4.2). As described on page 4.1-8 of the Draft EIR, the project would result in a potentially significant GHG impact associated with new natural gas plumbing, consistent with the BAAQMD significance threshold.

The threshold related to natural gas is explained on page 6-4 of the BAAQMD 2022 CEQA Guidelines. As described therein, for the building sector to achieve carbon neutrality and meet the State's climate goals of carbon neutrality by 2045, natural gas usage needs to be phased out and replaced with electricity usage, and electrical generation will need to shift to 100-percent carbon-free sources. To support these shifts, new projects need to be built without natural gas and with no inefficient or wasteful energy usage. As further described on page 6-4 of the BAAQMD 2022 CEQA Guidelines:

> *"…the "no natural gas" design element applies to all building types (i.e., residential and nonresidential). If the project includes appliances or equipment on-site that combust natural gas supplied by natural gas infrastructure, then the GHG emissions from the project would cause a significant and unavoidable impact. This design element is specific to natural gas being supplied by piped infrastructure, as extending the natural gas infrastructure for such projects "locks in" GHG emissions for decades to come and is therefore inconsistent with achieving carbon neutrality."*

Appendix B to the BAAQMD 2022 CEQA Guidelines provides more explanation on how the GHG significance thresholds were developed. Briefly, as described therein, the BAAQMD is now focused on achieving the state's longer-term goals of carbon neutrality by 2045. Moreover, the Supreme Court has recognized the necessity and appropriateness of using these longer-term goals as the touchstone for the CEQA analysis. As it held in Cleveland National Forest Foundation v. SANDAG, these longer-term goals express "what scientific research has determined to be the level of emissions reductions necessary to stabilize the climate by midcentury and thereby avoid catastrophic effects of climate change" (Cleveland National Forest Foundation v. SANDAG [2017] 3 Cal.5th 497, 513). As discussed on page B-9 of Appendix B to the BAAQMD 2022 CEQA Guidelines, with respect to building energy use, meeting carbon neutrality by 2024 can be achieved by replacing natural gas with electric power and by eliminating inefficient or wasteful energy usage. This will support California's transition away from fossil fuel–based energy sources and will bring the project's GHG emissions associated with building energy use down to zero as the state's electric supply becomes 100 percent carbon free.

Here, the GHG emissions are considered a significant impact, not because of potential emissions if future tenants utilize the natural gas infrastructure for appliances, but because the BAAQMD has adopted a threshold that finds that any inclusion of natural gas infrastructure in the project is a significant impact, regardless of use. The inclusion of natural gas infrastructure for this project, therefore, automatically creates a significant impact. As discussed previously, the City cannot legally prohibit the project from including natural gas infrastructure. The commenter does not provide mitigation measures that would eliminate natural gas infrastructure from the project in a way that the City can legally implement or enforce.

The commenter also does not provide a quantified threshold to which the GHG emissions of the project should be reduced below through measures other than removing natural gas from the project. The BAAQMD 2022 CEQA Guidelines do not require quantification of the GHG emissions of land-use projects, like the proposed project. The BAAQMD 2022 CEQA Guidelines also do not provide a quantified emissions threshold, such as a limit of metric tons of carbon dioxide equivalent per year emitted by a project. Instead, as mentioned earlier in this response, the BAAQMD thresholds are based on long-term goals of achieving carbon neutrality by 2045 by eliminating natural gas from new buildings, among other things. Specifically, as described on page 8-4 of the BAAQMD 2022 CEQA Guidelines, the thresholds for climate impacts from GHG emissions are not quantitative, and therefore have no bright-line threshold under which there can be an option to mitigate. The climate impact thresholds of significance for land use projects are specific design elements to be included in the project.

As explained earlier in Response 4.2 and Response 4.4, the City knows of no feasible mitigation measures to reduce the significant and unavoidable GHG emissions of the project to levels that would be less than significant. This is because the only known way to reduce the impact of provision of natural gas plumbing is to eliminate that plumbing, which is not feasible or enforceable. As explained in this response, the commenter's suggestion to target other sources of GHG emissions of the project would also not mitigate the impact. However, the City has developed Mitigation Measure GHG-1 to reduce or minimize use of natural gas in the proposed building to the extent possible while also complying with its interpretation of a decision from the Ninth Circuit that prevents cities and local agencies from prohibiting natural gas in projects (see Page 4.1-9 of the Draft EIR). Specifically, page 4.1-9 of the Draft EIR is revised as follows:

Mitigation Measures

The City is unable to implement mitigation to reduce this significant impact <u>to levels that would be less than significant</u> based on a recent court case titled California Restaurant Association v. City of Berkeley. Briefly, in this case, the California Restaurant Association sued Berkeley in the U.S. District Court for the Northern District of California, arguing among other things that the federal Energy Policy and Conservation Act (EPCA) preempted the City's ordinance banning natural gas in new buildings. The District Court dismissed the California Restaurant Association's challenge. However, the Ninth Circuit reversed the District Court, holding that EPCA expressly preempts state and local regulations concerning the energy use of many natural gas appliances. The Ninth Circuit concluded that EPCA preempted Berkeley's ban of natural gas, because it prohibited the onsite installation of natural gas infrastructure necessary to support natural gas appliances covered under the EPCA. Accordingly, based on the decision of the Ninth Circuit in California Restaurant Association v. City of Berkeley, the City of San Leandro cannot require the project applicant to eliminate natural gas from the proposed project. No other mitigation is available to eliminate the use of natural gas in the proposed project. See Section 6, *Alternatives*, which includes project alternatives that do not include natural gas connections.

<u>While the City is unable to require mitigation eliminating natural gas, this City has developed Mitigation Measure GHG-1 to reduce the use of natural gas to the extent possible.</u>

<u>*GHG-1 Natural Gas Use Reduction*</u>

<u>The building and its appliances (space heating, hot water heating, office cooking facilities, etc.) shall be all electric. Natural gas plumbing shall be permitted, activated and operated only for specific industrial or manufacturing processes that require natural gas as a critical component to that process or processes. The final site plans shall note that building appliances must be all electric. Building tenants shall be made aware of the restricted use of natural gas through language in the leasing and/or deed documentation.</u>

Significance After Mitigation

Implementation of Mitigation Measure GHG-1 would reduce the natural gas consumption as routine part of building operations, but it would not eliminate natural gas infrastructure from the project. Because the proposed project would include natural gas plumbing and there is no feasible mitigation to reduce potentially significant impacts resulting from the provision of this natural gas plumbing ~~GHG emissions of the project~~, impacts would remain significant and unavoidable.

No further revisions to the Draft EIR are required in response to this comment.

Response 4.7

The commenter opines that the Draft EIR concludes that the City is unable to eliminate natural gas from the project through mitigation measures without providing substantial evidence supporting this conclusion. The commenter suggests that the Draft EIR should have analyzed mitigation measures to determine feasibility.

This comment is similar to comments 4.4 and 4.5. Please see Response 4.4 and Response 4.5. Briefly, as discussed in Response 4.4 and Response 4.5, the potentially significant GHG impacts of the project is the result of new natural gas plumbing within the proposed building. The only measure the City is able to develop that would reduce the significance of this impact is to eliminate the natural gas plumbing from the project. The feasibility of implementing such a mitigation measure is discussed on page 4.1-9 of the Draft EIR, effectively describing how the Ninth Circuit prevents the City from eliminating natural gas from the project. This serves as substantial evidence as to why the mitigation cannot be implemented or enforced and impacts would remain significant and unavoidable. As stated in Response 4.4 and Response 4.5, no revisions to the Draft EIR are required in response to this comment.

Response 4.8

The commenter opines that the City did not analyze mitigation measures when concluding that the project's GHG impact would be unavoidable. The commenter suggests that does not amount to substantial evidence to support the conclusion that the project's impact would be significant and unavoidable.

This comment is similar to comments 4.4, 4.5, and 4.7. Please see Response 4.4, Response 4.5, and Response 4.7. Briefly, as described in those responses, the only mitigation to reduce the significant GHG impacts of the project that the City is able to develop is to eliminate natural gas from the project. This is because the potentially significant GHG impact of the project is related to the provision of natural gas in the proposed building and not related to the GHG emissions of the project exceeding a quantified threshold. The City is unable to eliminate natural gas from the building through mitigation (or through Ordinance) due to a decision of the Ninth Circuit. Page 4.1-9 of the Draft EIR discusses the elimination of natural gas as mitigation and describes why it is not feasible due to the Ninth Circuit decision, thereby providing substantial evidence to support the conclusion that the project's GHG impacts would be significant and unavoidable. No revisions to the Draft EIR are required in response to this comment.

Response 4.9

The commenter suggests that the City can work with the project applicant to reduce GHG emissions through technological specifications, such as committing to using zero-emission commercial vehicles and maintaining a charging system for the vehicle fleet that is energized with on-site solar panels. The commenter suggests that such measures demonstrate that the Draft EIR fails to provide substantial evidence that there is not mitigation for the significant and unavoidable GHG impacts of the project.

This comment is similar to comments 4.5 and 4.6. Please see Response 4.5 and Response 4.6. Briefly, as described therein, the potentially significant GHG impact of the project is related to the provision of natural gas in the proposed building. The potentially significant GHG emissions of the project are not related to commercial vehicle fleets that could be used for operation of the project or to the GHG emissions of the project exceeding a quantified threshold. The City is unable to eliminate natural gas from the building through mitigation (or through Ordinance) due to a decision of the Ninth Circuit. Page 4.1-9 of the Draft EIR discusses the elimination of natural gas as mitigation and describes why it is not feasible due to the Ninth Circuit, thereby providing substantial evidence to support the conclusion that project impacts would be significant and unavoidable.

The potential GHG impacts associated with vehicle operations of the project are evaluated in the Draft EIR. As discussed on page 4.1-8 of the Draft EIR, VMT generated by the project would be at least 15 percent below the average VMT per employee in the region. Additionally, the proposed project would include 21 electric-vehicle ready parking spaces for cars, which would meet and exceed the CalGreen Code requirement. Accordingly, as concluded on page 4.1-8 of the Draft EIR, the proposed project would satisfy the transportation design elements of the BAAQMD 2022 CEQA Guidelines significance threshold, which are listed on page 4.1-7 of the Draft EIR. Therefore, it is unnecessary for the City to require further mitigation pertaining to the potential vehicle fleet of the project, as the potential vehicle fleet does not contribute to the potentially significant GHG impacts of the project.

For informative purposes, the proposed project does include technological specifications and infrastructure that could result in reduced GHG emissions in the future. For example, electric charging infrastructure would be provided beneath the proposed truck parking area. In the future, depending on availability of technology and tenant preferences, charging stations could be installed in the truck parking area, and an all-electric vehicle fleet could be employed. However, as previously described, despite these types of zero- or low-carbon technological installations, the potentially significant GHG impact of the project would not be mitigated or reduced, because the potentially significant impact is due solely to the provision of natural gas plumbing in the proposed building.

No revisions to the Draft EIR are required in response to this comment.

Response 4.10

Citing a 2001 case from the California Court of Appeals, the commenter asserts that CEQA requires the project to include fair-share mitigation for significant cumulative impacts. The commenter states that the Draft EIR indicates no feasible mitigation measures are available to reduce the potentially significant cumulative GHG impacts of the project but suggests this is incorrect and not supported by substantial evidence.

As discussed in Response 4.2, above, the City elected to use the BAAQMD 2022 CEQA Guidelines significance thresholds to evaluate to the potential GHG impacts of the proposed project in the Draft EIR. As described in detail on pages 6-3 and 6-4 of the BAAQMD 2022 CEQA Guidelines and summarized on pages 4.1-6 and 4.1-7 of the Draft EIR, for a project to have a less-than-significant impact related to operational GHG emissions, it must include, at a minimum, incorporate certain project design elements or be consistent with a local GHG reduction strategy that meets *State CEQA*

Guidelines Section 15183.5(b) requirements. As described on page 4.1-7 of the Draft EIR, while the City has a qualified GHG reduction strategy, it chose to evaluate the significance of impacts based on whether the project incorporates the project design elements specified by BAAMD. These design elements are listed above in Response 4.2.

As described on page 6-2 of the BAAQMD 2022 CEQA Guidelines, the BAAQMD recommends that lead agencies use a “fair share” approach for determining whether an individual project’s GHG emissions would be cumulatively considerable. As stated on page 6-3 of the BAAQMD 2022 CEQA Guidelines:

> *“For a land use project to do its fair share to address the climate crisis and thus for its GHG emissions to be less than significant, a project cannot include sources that will “lock in” GHG emissions for decades into the future. A project that locks in GHG sources, without a clear path to reduce the emissions from those sources, prevents the State from achieving the climate goals. For this reason, the climate impact thresholds of significance…specify that certain design elements must be incorporated into the project…, or the project must be consistent with a local GHG reduction strategy that meets the criteria under CEQA Guidelines Section 15183.5(b)…”*

Thus, because the City uses the design elements specified in the BAAQMD 2022 CEQA Guidelines significance thresholds to evaluate the GHG impacts of the project in the Draft EIR, the City has evaluated the cumulative impacts of the project using a fair-share approach.

As described on page 4.1-13 of the Draft EIR, the proposed project’s contribution to significant cumulative GHG impacts would be cumulatively considerable. As discussed in detail in Response 4.5 and Response 4.6, above there is no feasible mitigation measures to reduce the GHG impact of the project because the impact is due solely to the provision of natural gas plumbing in the proposed building and a decision from the Ninth Circuit prevents the City from prohibiting natural gas in the project. Page 4.1-9 of the Draft EIR explains how and why the Ninth Circuit decision prevents the City from eliminating natural gas from the project, thereby providing substantial evidence of the City’s conclusion that GHG impacts, including cumulative impacts, would be significant and unavoidable. This comment does not provide or suggest mitigation that would both eliminate natural gas plumbing from the proposed project while also being feasible to implement and enforce. Therefore, no revisions to the Draft EIR are required in response to this comment.

Response 4.11

The commenter asserts that the amount of GHG emissions that comprises the project’s fair share is unclear, and the Draft EIR does not quantify the GHG emissions of the project or the lifespan of the project. The commenter asserts the omission of quantified emissions and project lifespan make it unknown how to determine how much off-set carbon credits and non-offset measures are needed to mitigate the significant GHG impacts of the project.

This portion of this comment pertaining to the quantification of project GHG emissions is similar to comment 4.3. Please see Response 4.3. Briefly, as described therein, the City did not quantify the GHG emissions of the project in the Draft EIR or otherwise. The BAAQMD significance thresholds used in the Draft EIR do not require or call for the quantification of GHG emissions. Instead, as detailed in Response 4.2 above, the thresholds state that for a project to have a less-than-significant impact related to operational GHG emissions, it must include, at a minimum, incorporate certain project design elements or be consistent with a local GHG reduction strategy that meets *State CEQA*

Guidelines Section 15183.5(b) requirements. For this reason, consistent with BAAQMD 2022 CEQA Guidelines, the City did not quantify the GHG emissions of the project.

The remainder of this comment pertains to suggesting that the potentially significant GHG impacts of the project could be mitigated through measures other than the elimination of natural gas from the project. This portion of the comment is related to earlier comments, including 4.1, 4.2, 4.3, 4.4, and 4.6. Please refer to Response 4.1, Response 4.2, Response 4.3, Response 4.4, and Response 4.6. Briefly, as described in those responses, the potentially significant GHG impact of the project is related to the provision of natural gas in the proposed building. The provision of the natural gas is a significant impact pursuant to the BAAQMD 2022 CEQA Guidelines significance thresholds. The potentially significant GHG impacts of the projects are not related to quantified GHG emissions. The commenters suggestion that reducing the GHG emissions of the project would mitigate the potentially significant impacts of the project is not accurate. This is because reducing the GHG emissions of the project would not eliminate natural gas from the project.

No revisions to the Draft EIR are required in response to this comment.

Response 4.12

The commenter suggests there are feasible ways to mitigate the GHG emissions of the project and provides several examples or suggestions, such as achieving Leadership and Energy and Environmental Design (LEED) certification, installing or incorporating renewable energy sources on-site, and increasing the number of elective-vehicle charging stations on-site.

This comment is related to earlier comments, including 4.1, 4.2, 4.3, 4.4, and 4.6. Please refer to Response 4.1, Response 4.2, Response 4.3, Response 4.4, and Response 4.6. Briefly, as described in those responses, the potentially significant GHG impact of the project is related to the provision of natural gas in the proposed building. The provision of the natural gas is a significant impact pursuant to the BAAQMD 2022 CEQA Guidelines significance thresholds. The potentially significant GHG impacts of the projects are not related to quantified GHG emissions. The commenters suggestion that reducing the GHG emissions of the project would mitigate the potentially significant impacts of the project is not accurate. This is because reducing the GHG emissions of the project would not eliminate natural gas from the project.

No revisions to the Draft EIR are required in response to this comment. For informational purposes, the applicant proposes to achieve a minimum of LEED Silver Certification for the project.

Response 4.13

The commenter suggests that the City could reduce the significant GHG impacts of the project by including mitigation measures to reduce the GHG emissions of the project with a combination of on-site activities and off-site carbon credits. The commenter suggests that the City failed to acknowledge or implement these types of mitigation measures.

This comment is related to earlier comments, including 4.1, 4.2, 4.3, 4.4, and 4.6. Please refer to Response 4.1, Response 4.2, Response 4.3, Response 4.4, and Response 4.6. Briefly, as described in those responses, the potentially significant GHG impact of the project is related to the provision of natural gas in the proposed building. The provision of the natural gas plumbing is a significant impact pursuant to the BAAQMD 2022 CEQA Guidelines significance thresholds. The potentially significant GHG impacts of the projects are not related to quantified GHG emissions. The commenters suggestion that reducing the GHG emissions of the project would mitigate the potentially significant impacts of the project is not accurate. This is because reducing the GHG emissions of the project would not eliminate natural gas from the project. Because measures to reduce the GHG emissions of the project would not address the potentially significant impact of the inclusion of natural gas plumbing in the proposed project, the City did not consider or include the measures like carbon credits in the Draft EIR.

No revisions to the Draft EIR are required in response to this comment.

Response 4.14

The commenter opines that the Draft EIR fails to require feasible mitigation, despite concluding that the significant GHG impact would be unavoidable. The commenter suggests that the lead agency has not met its burden of showing that such measures are infeasible, and therefore the DEIR should be amended to reflect all feasible.

This comment is similar to numerous earlier comments in this letter, such as comments 4.2, 4.4, and 4.6. As explained earlier in Response 4.2 and Response 4.4, the City knows of no feasible mitigation measures to reduce the significant and unavoidable GHG emissions of the project. As explained in Response 4.6, the commenter's suggestion to target other sources of GHG emissions of the project to reduce the significant GHG impact would not reduce the significant GHG impact of the project. This is because the mitigation measures suggested by commenter do not provide feasible or enforceable means by which the City could eliminate natural gas plumbing from the proposed project. Accordingly, no revisions to the Draft EIR are required in response to this comment.

Response 4.15

The commenter requests to be added to the project mailing and notification list. The City will add the commenter to the project mailing list. No revisions to the Draft EIR are required in response to this comment.

LETTER 5

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VIA EMAIL TO:
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SUBJECT: COMMENTS ON THE 880 DOOLITTLE DRIVE INDUSTRIAL PROJECT. (SCH NO. 2023110597)

Dear Ms. Lemaire,

Thank you for the opportunity to comment on the Environmental Impact Report (EIR) for the proposed 880 Doolittle Drive Industrial Project. 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. **5.1**

1.0 Summary

The project involves the demolition of existing vacant warehouse buildings and associated surface parking on the site. Following demolition of existing structures and a lot merger, the proposed project would include construction of a new warehouse with supporting office space, site improvements, and landscaping. The proposed warehouse would be approximately 244,573 square feet, comprised of a 229,573 square-foot of warehouse area and 15,000 square feet of associated office space. Approximately 10,000 square feet of office space would be provided on the ground floor alongside the warehouse use. The remaining 5,000 square feet of office space would be on a mezzanine level of the warehouse. The building is designed as a cross-dock fulfillment center with 64 truck/trailer loading dock doors (27 truck/trailer loading dock doors on the north side of the building, 37 truck/trailer loading dock doors on the south side of the building), and 59 truck/trailer parking stalls. **5.2**

1.1 Project Piecemealing

The EIR does not accurately or adequately describe the project, meaning "the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment" (CEQA § 15378). The proposed project is a piecemealed portion of a larger overall project to be developed within the larger Prologis development in the City. At minimum, this includes PLN20-0044[1] located at 1919 Williams Street[2] (221,495 sf warehouse). The two piecemealed projects total 466,068 sf of warehousing space.

5.3

A project EIR must be prepared that accurately represents the whole of the action without piecemealing the project into separate, smaller development projects to present unduly low environmental impacts. CEQA Section 15161 describes project EIRs as examining "the environmental impacts of a specific development project. This type of EIR should focus primarily on the changes in the environment that would result from the development project. The EIR shall examine all phases of the project including planning, construction, and operation." The specific development project is the construction and operation of all Prologis buildings.

Additionally, CEQA Section 15146 requires that the degree of specificity in an EIR "will correspond to the degree of specificity involved in the underlying activity which is described in the EIR. (a) An EIR on a construction project will necessarily be more detailed in the specific effects of the project than will be an EIR on the adoption of a local general plan or comprehensive zoning ordinance because the effects of the construction can be predicted with greater accuracy." 5.4 Because there are multiple proposed buildings as part of a single project, the project EIR must be more detailed in the specific effects of the project. A project EIR must be prepared which accurately represents the whole of the action without piecemealing the project into separate, smaller development projects, phases, or development areas to present unduly low environmental impacts.

1.4 Issues Not Studied in Detail in the EIR: Land Use and Planning

The Initial Study concludes that the proposed project is consistent with the General Plan without considering the EIR's conclusion that the project will result in significant and unavoidable 5.5 cumulatively considerable impacts to Greenhouse Gas Emissions. The EIR is inadequate as an informational document and a revised EIR must be prepared with a consistency analysis that

[1] https://aca-prod.accela.com/SANLEANDRO/Default.aspx
[2] https://ceqanet.opr.ca.gov/Project/2021080547

considers the project's significant and unavoidable impacts in its analysis, including but not limited to the following goals and policies that were adopted for the purposes of avoiding or mitigating an environmental effect:

1. Goal LU-11 Manage the city's growth in a way that maintains the quality of life and reflects the capacity of infrastructure and public services. Policy LU-11.1 Use of the General Plan Environmental Impact Report. Use the 2035 household and employment forecasts in this General Plan as parameters for environmental analysis for future development projects within the San Leandro city limits. The General Plan and its associated Environmental Impact Report presumed an incremental increase of 5,600 housing units and 12,130 jobs between 2015 and 2035. In the event that proposed development in the city would exceed these amounts, the Director of Community Development shall require that environmental review for any subsequent development address growth impacts that would occur as a result of development exceeding the General Plan projections. This does not preclude the City, as lead agency, from determining that an EIR would be required for any development to the extent required under the relevant provisions of CEQA (e.g. Section 21166 and related guidelines).

2. Policy ED-1.3 Industrial Land Use Efficiency. Encourage more efficient use of the City's industrial land supply, creating higher employment densities and high quality jobs, while discouraging the use of large sites and buildings for storage and other low intensity uses. Ensure that zoning and other development regulations support higher utilization of sites zoned for commercial and industrial activities. 5.5

3. Goal EJ-1 Reduce Pollution Exposure and Improve Air Quality.

4. Policy EH-3.3 Land Use Compatibility. Discourage new uses with potential adverse air quality impacts, including the emission of toxic air contaminants and fine particulates, near residential neighborhoods, schools, hospitals, nursing homes, and other locations where public health could potentially be affected.

5. Policy EH-3.4 Design, Construction, and Operation. Require new development to be designed and constructed in a way that reduces the potential for future air quality problems, such as odors and the emission of any and all air pollutants. This should be done by: (a) Requiring construction and grading practices that minimize airborne dust and particulate matter; (b) Ensuring that best available control technology is used for operations that could generate air pollutants; (c) Encouraging energy conservation and low-polluting energy sources; (d) Promoting landscaping and tree planting to absorb carbon monoxide and other pollutants; and (e) Implementing the complementary strategies to reduce greenhouse gases identified in the Climate Action Plan.

6. Policy EH-9.6 Airport Safety Zones. Regulate land uses within designated airport safety zones, height referral areas, and noise compatibility zones to minimize the possibility of future noise conflicts and accident hazards.

7. Policy T-1.5 Land Use Strategies. Promote land use concepts that reduce the necessity of driving, encourage public transit use, and reduce trip lengths. These concepts include live-work development, mixed use development, higher densities along public transit corridors, and the provision of commercial services close to residential areas and employment centers.

8. Action T-5.2.A: New Evaluation Methodologies Consistent with SB 743, implement new methodologies for evaluating and mitigating transportation impacts which are based on VMT rather than level of service (LOS). Until such methodologies are developed and adopted, the City will use the following minimum acceptable peak hour service standards for streets and intersections: LOS "D" for streets and intersections located outside of the designated Priority Development Areas (PDAs) in Downtown, Bay Fair, and East 14th Street; and LOS "E" for streets and intersections located within the designated Priority Development Areas (PDAs) for Downtown, Bay Fair, and East 14th Street. The LOS "E" standard for the PDAs recognizes the emphasis on other modes of travel in these areas, in particular public transit, bicycling, and walking. It also recognizes the desire for slower vehicle speeds to improve the safety of these other modes, as well as the character of these areas as places of concentrated economic activity and high-density housing. The standard does not preclude the City, developers, and private property owners from voluntarily implementing improvements and programs to improve levels of service. 5.5

Further, the EIR states that approval an application for a height exception is required to implement the project, but details of the request are not provided in the EIR or the Initial Study. A revised EIR must be prepared to include this information for analysis to comply with CEQA's requirements for adequate informational documents and meaningful disclosure (CEQA § 15121). 5.6

1.4 Issues Not Studied in Detail in the EIR: Population and Housing

The IS excludes a quantified analysis of the project's construction and/or operational workforce in this section. The U.S. Energy Information Administration[3] provides the following applicable employment generation rate for warehouses: 5.7

No Refrigeration: 1 employee per 1,226 square feet

[3] US EIA Commercial Buildings Energy Consumption Survey, Table B1: Summary table: total and means of floorspace, number of workers, and hours of operation, 2018
https://www.eia.gov/consumption/commercial/data/2018/bc/html/b1.php

Applying this ratio results in the following calculation:
Non-Refrigerated: 244,573 sf/ 1,226 = 200 employees

The General Plan EIR[4] notes that the City will add approximately 3,735 jobs in the Wholesale trade between 2015 - 2035. Utilizing the U.S. EIA calculation of 200 employees, the project represents 5.3% of the City's employment growth from 2015 - 2035. A single project accounting for this amount of the projected employment growth over 20 years represents a significant amount of growth. A revised EIR must be prepared to include this analysis, and also provide a cumulative analysis discussion of projects approved since 2015 and projects "in the pipeline" to determine if the project will exceed the General Plan employment growth forecast for the City. For example, the piecemealed industrial project at 1919 Williams (221,495 sf warehouse; 181 employees) 5.7 combined with the proposed project will cumulatively generate 381 employees, which is 10.2% of the City's employment growth forecast over 2 years accounted for by only two recent industrial projects. The amount of growth accounted for by cumulative projects multiplies exponentially when other development activity approved since 2015 are added to the calculation. A revised EIR must be prepared to include this information for analysis and also include a cumulative development analysis of projects approved since 2015 and projects "in the pipeline" to determine if the proposed project exceeds the City's growth forecasts. Additionally, a revised EIR must also provide demographic and geographic information on the location of qualified workers to fill these 5.8 positions in order to provide an accurate environmental analysis.

2.0 Project Description

The EIR does not include a floor plan, detailed site plan, detailed building elevations or a complete conceptual grading plan. The basic components of a Planning Application include a detailed site 5.9 plan, floor plan, conceptual grading plan, written narrative, and detailed elevations. The site plan provided in Figure 2-4 has been edited for public review to remove meaningful information such as the floor area ratio, site coverage, and key notes. All of these basic items are necessary to 5.10 conduct any type of analysis, and the EIR is inadequate as an informational document as it is not possible to ascertain any meaningful analysis based upon the information provided. Further, the elevations provided in Figure 2-5 are completely blurry and illegible; no meaningful information 5.11 (such as the height of the buildings, colors, or materials) is provided as a result.

The EIR has also excluded a detailed grading plan from public review. Figure 2-8 does not provide 5.12 any standard items found on a grading plan, such as the earthwork quantity notes or grading

[4] https://www.sanleandro.org/DocumentCenter/View/1256/Chapter-3-Project-Design-PDF

contour lines. The EIR states that, "The site is *relatively* level, which *minimizes* the amount of grading included in the proposed project." There is no detailed information or quantification of the earthwork movement required to construct the project. There is no method for the public to verify this claim that "the site is relatively level" and that grading will be "minimized." Providing the complete grading plan and earthwork quantity notes is vital as this directly informs the quantity of necessary truck hauling trips due to soil import/export during the grading phase of construction. **5.12** A revised EIR must be prepared to include wholly accurate and unedited detailed floor plan, grading plan, site plan, elevations, and project narrative for public review. **5.13**

Additionally, the EIR states that approval an application for a height exception is required to implement the project, but details of the request are not provided in the EIR or the Initial Study. A revised EIR must be prepared to include this information for analysis to comply with CEQA's requirements for adequate informational documents and meaningful disclosure (CEQA § 15121). **5.14**

1.4 Issues Not Studied in Detail in the EIR: Air Quality and Energy and 4.1 Greenhouse Gas Emissions

Please see the attachment for a full technical commentary and analysis from SWAPE. **5.15**

The EIR does not include for analysis relevant environmental justice issues in reviewing potential impacts, including cumulative impacts from the proposed project. **5.16** The EIR provides general information about the census tract's Calenviroscreen scores but does not provide meaningful analysis regarding the health impacts and effects of severe pollution rates. This is in conflict with CEQA Guidelines Section 15131 (c), which requires that "Economic, social, and particularly housing factors shall be considered by public agencies together with technological and environmental factors in deciding whether changes in a project are feasible to reduce or avoid the significant effects on the environment identified in the EIR. If information on these factors is not contained in the EIR, the information must be added to the record in some other manner to allow the agency to consider the factors in reaching a decision on the project." This is especially significant as the surrounding community is highly burdened by pollution. **5.17** The EIR also excludes that the project site is listed as a Disadvantaged Community in Figure 12-1: San Leandro Environmental Justice Communities in the General Plan Environmental Justice Element[5]. **5.18**
According to CalEnviroScreen 4.0[6], CalEPA's screening tool that ranks each census tract in the **5.19**

[5] https://www.sanleandro.org/DocumentCenter/View/8893/Chapter12---Environmental-Justice-Element-120522?bidId=
[6] CalEnviroScreen 4.0 https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40

state for pollution and socioeconomic vulnerability, the proposed project's census tract (6001432400) ranks worse than 92% of the rest of the state in overall pollution burden and 71% of the state overall in socioeconomic impacts. **5.19**

The proposed project's census tract and surrounding community bears the impact of multiple sources of pollution and is more polluted than average on several pollution indicators measured by CalEnviroScreen. For example, the project census tract ranks in the 94th percentile for diesel particulate matter (PM) burden and 84th percentile for traffic burdens. All of these environmental factors are attributed to heavy traffic (including truck activity) in the area. While California has strict vehicle-emissions standards, exhaust from cars and trucks is the main source of air pollution in much of the state[7]. Exhaust fumes contain toxic chemicals that can damage DNA, cause cancer, make breathing difficult, and cause low weight and premature births[8]. 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[9]. **5.20**

The census tract ranks among the most severely impacted in several areas that impact water quality. The census tract ranks in the 97th percentile for groundwater threats. People who live near contaminated groundwater may be exposed to chemicals moving from the soil into the air inside their homes[10]. Accordingly, the census tract ranks in the 87th percentile for drinking water impacts, which indicates that it ranks with the worst quality drinking water in the state. Poor communities and people in rural areas are exposed to contaminants in their drinking water more often than people in other parts of the state[11]. **5.21**

The census tract also ranks in the 99th percentile for solid waste facility impacts. Solid waste facilities can expose people to hazardous chemicals, release toxic gases into the air (even after these facilites are closed), and chemicals can leach into soil around the facility and pose a health risk to nearby populations[12]. **5.22**

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[7] OEHHA Traffic https://oehha.ca.gov/calenviroscreen/indicator/traffic-density
[8] OEHHA Traffic https://oehha.ca.gov/calenviroscreen/indicator/traffic-density
[9] OEHHA Diesel Particulate Matter https://oehha.ca.gov/calenviroscreen/indicator/diesel-particulate-matter
[10] OEHHA Groundwater Threats https://oehha.ca.gov/calenviroscreen/indicator/groundwater-threats
[11] OEHHA Drinking Water https://oehha.ca.gov/calenviroscreen/drinking-water
[12] OEHHA Solid Waste Facilities https://oehha.ca.gov/calenviroscreen/indicator/solid-waste-sites-and-facilities

The census tract also bears more impacts from cleanup sites than 90% of the state. Chemicals in the buildings, soil, or water at cleanup sites can move into nearby communities through the air or movement of water[13]. 5.23

The census tract ranks in the 62nd percentile for toxic releases. People living near facilities that emit toxic releases may breathe contaminated air regularly or if contaminants are released during an accident[14]. 5.24

Further, the project's census tract is a diverse community including 42% Hispanic, 31% Asian-American, and 6% African-American residents, whom are especially vulnerable to the impacts of pollution. The community has a high rate of low educational attainment, meaning 66% 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 49% of the households in the census tract have a total income before taxes that is less than the poverty level. Income can affect health when people cannot afford healthy living and working conditions, nutritious food and necessary medical care[15]. Poor communities are often located in areas with high levels of pollution[16]. Poverty can cause stress that weakens the immune system and causes people to become ill from pollution[17]. 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 58th percentile for incidence of cardiovascular disease and 82nd percentile for incidence of asthma. The community also has a high rate of linguistic isolation, meaning 57% of the census tract speaks little to no English and faces further inequities as a result. 5.25

Additionally, the project census tract (6001432400) and the census tracts adjacent to the project site (6001409000 (north/west), 6001409100 (east), and (6001409200) east) are identified as SB 535 Disadvantaged Communities[18]. This indicates that cumulative negative impacts of development and environmental impacts in the area are disproportionately impacting these communities. The EIR does not discuss that the surrounding area is a disadvantaged community and does not utilize this information in its analysis. The EIR has not considered the environmental impacts in relation to the SB 535 status of the project census tract and surrounding area. The negative environmental, health, and quality of life impacts of the warehousing and logistics industry in the area have become distinctly inequitable. The severity of environmental impacts 5.26

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[13] OEHHA Cleanup Sites https://oehha.ca.gov/calenviroscreen/indicator/cleanup-sites
[14] OEHHA Toxic Releases https://oehha.ca.gov/calenviroscreen/indicator/toxic-releases-facilities
[15] OEHHA Poverty https://oehha.ca.gov/calenviroscreen/indicator/poverty
[16] Ibid.
[17] Ibid.
[18] OEHHA SB 535 Census Tracts https://oehha.ca.gov/calenviroscreen/sb535

particularly on these Disadvantaged Communities must be included for analysis as part of a revised EIR. 5.26

The State of California lists three approved compliance modeling softwares[19] for non-residential buildings: CBECC-Com, EnergyPro, and IES VE. CalEEMod is not listed as an approved software. The CalEEMod modeling does not comply with the 2022 Building Energy Efficiency Standards and under-reports the project's significant Energy impacts and fuel consumption to the public and decision makers. Since the EIR did not accurately or adequately model the energy 5.27
impacts in compliance with Title 24, it cannot conclude the project will generate less than significant impacts and a finding of significance must be made. A revised EIR with modeling using one of the approved software types must be prepared and circulated for public review in order to adequately analyze the project's significant environmental impacts. This is vital as the EIR utilizes CalEEMod as a source in its methodology and analysis, which is clearly not an approved software.

4.2 Hazards and Hazardous Materials

The project site is located within the Outer Approach Zone (Zone 4) of the Oakland Airport 5.28
Influence Area. The IS states that, "the project applicant submitted the project to the FAA, who determined that a proposed building height of 50 feet does not present a hazard to air navigation. Therefore, the project would not result in a safety hazard or excessive noise for people working in the project area as a result of airport operations," and the EIR states that, "pursuant to Federal Aviation Regulations Part 77, a No Hazard Determination for the warehouse was issued from the Federal Aviation Administration pursuant to Federal Aviation Regulations Part 77, because the proposed warehouse would have a maximum height of 50 feet, exceeding the 43 feet maximum permitted at this distance from the airport runway. The applicant submitted the project to the FAA, who determined that a building height of 50 feet does not present a hazard to air navigation. An additional No Hazard Determination may also be needed for the use of project construction 5.29
equipment exceeding 43 feet in height."

However, the EIR and IS exclude the FAA determination from public review. This does not comply with CEQA's requirements for adequate informational documents and meaningful disclosure (CEQA § 15121 and 21003(b)). Incorporation by reference (CEQA § 15150 (f)) is not appropriate as the FAA determination contributes directly to analysis of the problem at hand. A revised EIR must be prepared to include the FAA determination for review, analysis, and comment

[19] 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

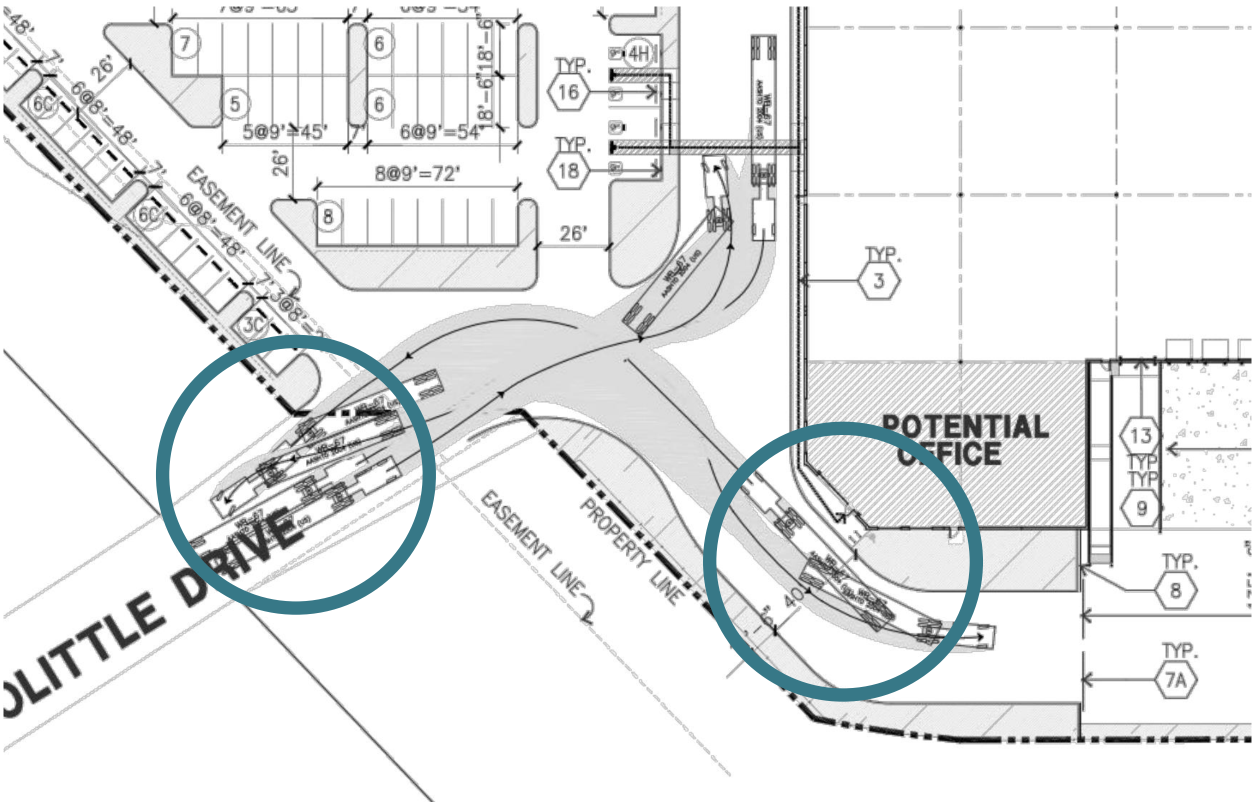
by the public and decision makers. The EIR must also include revised building elevations that are legible to the public, and clearly (not blurry) depict the height of the building to its highest point 5.30 in order for the public and decision makers to verify building height in accordance with the FAA's review.

Further, the EIR must be revised to include a finding of significance as it has not provided meaningful evidence to support the conclusion that equipment utilized to construct the project will 5.31 not result in a safety hazard or excessive noise for people working in the project area as a result of airport operations.

4.4 Transportation

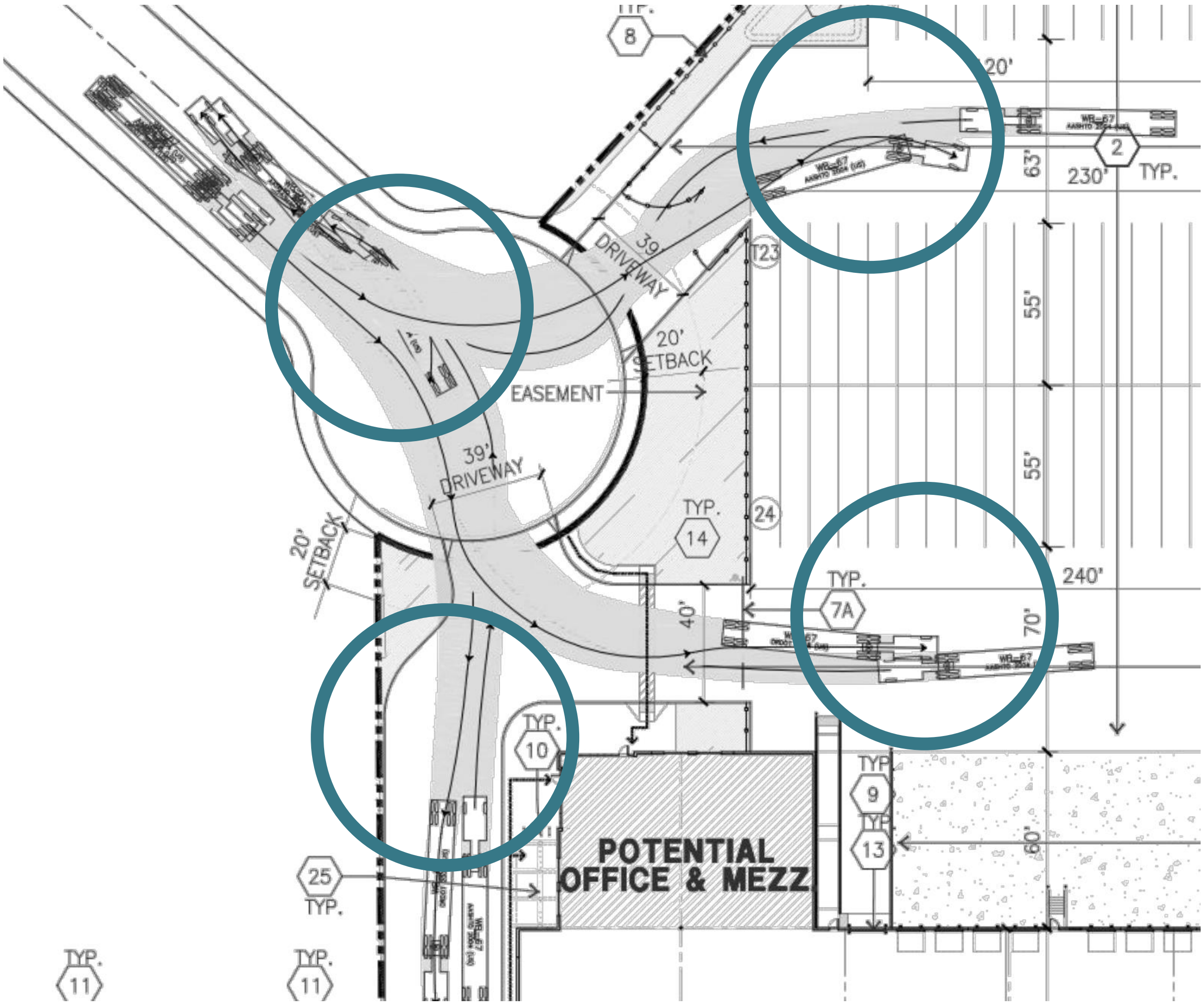
the EIR has underreported the quantity VMT generated by the proposed project operations. The operational nature of industrial/warehouse uses involves high rates of truck/trailer/delivery van VMT due to traveling from large import hubs to regional distribution centers to smaller industrial parks and then to their final delivery destinations. Once employees arrive at work at the proposed 5.32 project, they will conduct their jobs by driving delivery vans across the region as part of the daily operations as a fulfillment center, which will drastically increase project-generated VMT. The project's truck/trailer and delivery van activity is unable to utilize public transit or active transportation and it is misleading to the public and decision makers to exclude this activity from VMT analysis. The project's total operational VMT generated is further inconsistent with the 5.33 significance threshold and legislative intent of SB 743 to reduce greenhouse gas emissions by reducing VMT. A revised EIR must be prepared to reflect a quantified VMT analysis that includes 5.34 all truck/trailer and delivery van activity.

The EIR has not adequately analyzed the project's potential to substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses; or the project's potential to result in inadequate emergency access. The EIR excludes any analysis or discussion of the available maneuvering and queueing space for trucks/trailers at the intersection of the project driveways and the adjacent streets, or throughout the site. Figure 2: Site Plan within 5.35 Appendix C is overlaid with a truck/trailer turning template that depicts several areas of conflict between trucks/trailer as they access and maneuver throughout the site. For example, there are several areas of modeling "overlap," which indicates there is not sufficient available maneuvering space for more than one truck/trailer and the vehicles will collide. This occurs at the entrance to the southern truck/trailer loading dock and the driveway on Doolittle Drive.



5.35

This also occurs on the north side of the project site, including at the driveway access point on Hester Street, the internal driveway providing access to the southern portion of the site, within the truck/trailer loading dock and parking stall areas. A revised EIR must be prepared to include a finding of significance due to these significant and unavoidable impacts.



5.35

5.1 Growth Inducement and 5.2 Irreversible Environmental Effects

A revised EIR must be prepared to include an accurate cumulative analysis discussion here to 5.36
demonstrate the impact of the proposed project in a cumulative setting. The EIR does not include
any information regarding the buildout conditions of the City's General Plan in order to provide
an adequate and accurate environmental analysis. The EIR must be revised to provide the horizon
year of the City's current adopted General Plan, the total developable building floor area analyzed 5.37
within the General Industrial land use designation, and cumulative development since adoption of
the General Plan to ensure that the proposed project is within the General Plan EIR's analysis,
particularly since the EIR tiers from the General Plan EIR.

Further, the EIR has not provided a cumulative analysis of growth in the City. The General Plan EIR[20] notes that the City will add approximately 3,735 jobs in the Wholesale trade between 2015 - 2035. Utilizing the U.S. EIA calculation of 200 employees, the project represents 5.3% of the City's employment growth from 2015 - 2035. A single project accounting for this amount of the projected employment growth over 20 years represents a significant amount of growth. A revised EIR must be prepared to include this analysis, and also provide a cumulative analysis discussion of projects approved since 2015 and projects "in the pipeline" to determine if the project will 5.38
exceed the General Plan employment growth forecast for the City. For example, the piecemealed industrial project at 1919 Williams (221,495 sf warehouse; 181 employees) combined with the proposed project will cumulatively generate 381 employees, which is 10.2% of the City's employment growth forecast over 2 years accounted for by only two recent industrial projects. The amount of growth accounted for by cumulative projects multiplies exponentially when other development activity approved since 2015 are added to the calculation. A revised EIR must be prepared to include this information for analysis and also include a cumulative development analysis of projects approved since 2015 and projects "in the pipeline" to determine if the proposed project exceeds the City's growth forecasts.

Conclusion

For the foregoing reasons, GSEJA believes the EIR is flawed and a revised EIR must be prepared 5.39
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 5.40
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.

Sincerely,

Gary Ho
Blum, Collins & Ho LLP

Attachment: SWAPE Analysis

[20] https://www.sanleandro.org/DocumentCenter/View/1256/Chapter-3-Project-Design-PDF

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

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July 30, 2024

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

Subject: Comments on the 880 Doolittle Drive Industrial Project (SCH No. 2023110597)

Dear Mr. Ho,

We have reviewed the June 2024 Draft Environmental Impact Report ("DEIR") for the 880 Doolittle Drive Industrial Project ("Project") located in the City of San Leandro ("City"). The Project proposes to construct 229,573-square-feet ("SF") of warehouse space, 15,000-SF of office space, and 204 parking spaces on the 14.14-acre site.

Our review concludes that the DEIR fails to adequately evaluate the Project's air quality and greenhouse gas impacts. As a result, emissions and health risk impacts associated with construction and operation of the proposed Project may be underestimated and inadequately addressed. A revised Environmental Impact Report ("EIR") should be prepared to adequately assess and mitigate the potential air quality and greenhouse gas impacts that the project may have on the environment.

Air Quality

Unsubstantiated Input Parameters Used to Estimate Project Emissions

The DEIR's air quality analysis relies on emissions calculated with the California Emissions Estimator Model ("CalEEMod") Version 2020.4.0 (p. 40).[1] CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act ("CEQA") requires that such changes be justified by substantial evidence. Once all of the 5A.1

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

values are inputted into the model, the Project's construction and operational emissions are calculated, and "output files" are generated. These output files disclose which parameters are used in calculating the Project's air pollutant emissions by identifying any changes to default values. Justifications are provided for each altered value. 5A.1

When reviewing the Project's CalEEMod output files, provided in the Air Quality Assessment ("AQ Assessment") as Appendix A to the DEIR, we found that several model inputs were inconsistent with information disclosed in the DEIR. As a result, model inputs were unsubstantiated to apply to the Project and the Project's construction emissions may be underestimated. A revised EIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that construction 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 "880 Doolittle Project" model includes several changes to the default individual construction phase lengths (see excerpt below) (Appendix A, pp. 193, 225, 252).

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	66.00
tblConstructionPhase	NumDays	300.00	195.00
tblConstructionPhase	NumDays	20.00	44.00
tblConstructionPhase	NumDays	30.00	46.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	10.00	42.00
tblConstructionPhase	PhaseEndDate	9/11/2025	7/31/2025
tblConstructionPhase	PhaseEndDate	7/17/2025	6/2/2025
tblConstructionPhase	PhaseEndDate	3/28/2024	5/1/2024
tblConstructionPhase	PhaseEndDate	5/23/2024	9/2/2024
tblConstructionPhase	PhaseEndDate	8/14/2025	7/31/2025
tblConstructionPhase	PhaseEndDate	4/11/2024	6/28/2024
tblConstructionPhase	PhaseStartDate	8/15/2025	5/1/2025
tblConstructionPhase	PhaseStartDate	5/24/2024	9/3/2024
tblConstructionPhase	PhaseStartDate	4/12/2024	7/1/2024
tblConstructionPhase	PhaseStartDate	7/18/2025	6/3/2025
tblConstructionPhase	PhaseStartDate	3/29/2024	5/2/2024

5A.2

The models consequently include the following construction schedule (see excerpt below) (Appendix A, pp. 198, 229, 230, 256, 257).

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days
1	Demolition	Demolition	3/1/2024	5/1/2024	5	44
2	Site Preparation	Site Preparation	5/2/2024	6/28/2024	5	42
3	Grading	Grading	7/1/2024	9/2/2024	5	46
4	Building Construction	Building Construction	9/3/2024	6/2/2025	5	195
5	Paving	Paving	6/3/2025	7/31/2025	5	43
6	Architectural Coating	Architectural Coating	5/1/2025	7/31/2025	5	66

The demolition phase is increased by 230%, from the default value of 20 to 66 days; the site preparation phase is increased by 320%, from the default value of 10 to 42 days; the grading phase is increased by 53%, from the default value of 30 to 46 days; the building construction phase is decreased by 35%, from the default value of 300 to 195 days; the paving phase is increased by 115%, from the default value of 20 to 43 days; and the architectural coating phase is increased by 230%, from the default value of 20 to 66 days. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[2] According to the "User Entered Comments & Non-Default Data" table, the justification provided for these changes is:

> "Anticipated Construction Schedule" (Appendix A, pp. 192, 224, 250).

5A.2

Regarding construction activities, the AQ Assessment states:

> "Assuming construction of the project is continuous, construction would occur over approximately 18 months, with 6 of those months being a period of inactivity following demolition that is associated with construction contracting" (p. 2-14).

The DEIR also states:

> "Demolition would last approximately 2 months" (p. 2-8).

While the DEIR justifies the duration of both the demolition phase length of 2 months and the total construction duration of 18 months, the changes to the individual construction phase lengths remain unsubstantiated. The DEIR fails to substantiate the changes to the site preparation, grading, building construction, paving, and architectural coating phase lengths. Until adequate information is provided that justifies the changes to each individual construction phase length, the model should have included proportionately altered individual phase lengths to match the proposed construction duration of 18 months.

[2] "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. 1, 14.

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).[3]

> *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. **5A.2**
>
> *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. 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.

Updated Analysis Indicates a Potentially Significant Air Quality Impact

To more accurately estimate the Project's construction-related emissions, we prepared an updated CalEEMod model, using the Project-specific information provided by the DEIR. In our updated model, we proportionately altered the construction phase lengths to match the total construction duration of 18 months.[4] All other values were consistent with the DEIR's model. **5A.3**

Our updated analysis estimates that the Project's construction-related volatile organic compound ("VOC") emissions exceed the applicable BAAQMD thresholds of 54-pounds per day ("lbs/day"), respectively, as referenced by the DEIR (p. 4.2-23, Table 4.2-8) (see table below).

---

[3] "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.

[4] See Attachment A for construction calculations and Attachment B for the updated CalEEMod model.

Construction	VOC (lbs/day)
DEIR	43.72
SWAPE	136.54
% Increase	212%
BAAQMD Threshold	**54**
Exceeds?	***Yes***

5A.3

Construction-related VOC emissions, as estimated by SWAPE, increase by approximately 212%, and exceed the applicable BAAQMD significance threshold. Our model demonstrates that the Project would result in a potentially significant air quality impact that was not previously identified or addressed by the DEIR. A revised EIR should be prepared to adequately assess and mitigate the potential air quality impacts that the Project may have on the environment.

Greenhouse Gas

Failure to Adequately Evaluate Greenhouse Gas Impacts

The DEIR concludes that the Project will result in a significant-and-unavoidable GHG impact, stating:

> "Because there is no feasible mitigation to reduce potentially significant impacts resulting from GHG emissions of the project, impacts would remain significant and unavoidable" (DEIR, p. 4.1 - 9).

The DEIR specifically states that because the City cannot require the elimination of natural gas from the Project, no other mitigation is available:

> "The City is unable to implement mitigation to reduce this significant impact based on a recent court case titled California Restaurant Association v. City of Berkeley. Briefly, in this case, the California Restaurant Association sued Berkeley in the U.S. District Court for the Northern District of California, arguing among other things that the federal Energy Policy and Conservation Act (EPCA) preempted the City's ordinance banning natural gas in new buildings. The District Court dismissed the California Restaurant Association's challenge. However, the Ninth Circuit reversed the District Court, holding that EPCA expressly preempts state and local regulations concerning the energy use of many natural gas appliances. The Ninth Circuit concluded that EPCA preempted Berkeley's ban of natural gas, because it prohibited the onsite installation of natural gas infrastructure necessary to support natural gas appliances covered under the EPCA. Accordingly, based on the decision of the Ninth Circuit in California Restaurant Association v. City of Berkeley, the City of San Leandro cannot require the project applicant to eliminate natural gas from the proposed project. No other mitigation is available to eliminate the use of natural gas in the proposed project" (p. 4.1-9).

5A.4

While we understand the City may not be able to require the elimination of natural gas from the Project, other feasible mitigation measures exist that would lessen Project emissions. To reduce the Project's GHG impacts to the maximum extent possible, additional feasible mitigation measures should be incorporated, such as those suggested in the section of this letter titled "Feasible Mitigation Measures Available to Reduce Emissions." The Project should not be approved until a revised EIR is prepared, incorporating all feasible mitigation to reduce emissions to the maximum extent possible.

Mitigation

Feasible Mitigation Measures Available to Reduce Emissions

According to CEQA Guidelines § 15096(g)(2):

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

The DEIR is consequently required under CEQA to implement all feasible mitigation to reduce the Project's potential impacts. As demonstrated in the sections above, the Project would result in potentially significant air quality and GHG impacts that should be mitigated further.

First, in order to reduce the VOC emissions associated with Project construction, we recommend the DEIR consider incorporating the following mitigation measure from the California Department of Justice ("DOJ"):[5] **5A.4**

- Require the use of super compliant, low-VOC paints less than 10 g/L during the architectural coating construction phase and during Project maintenance.

SCAQMD staff recommends: [6]

- Use of water-based or low VOC cleaning products that go beyond the requirements of South Coast AQMD Rule 1113.

Furthermore, Los Angeles County recommends:[7]

- If paints and coatings with VOC content of 0 grams/liter to less than 10 grams/liter cannot be utilized, the developer shall avoid application of architectural coatings during the peak smog season: July, August, and September.

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[5] "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.
[6] "Notice of Preparation of a Draft Environmental Impact Report for the Banning Commerce Center Project (Proposed Project)." SCAQMD, September 2022, *available at*: https://ceqanet.opr.ca.gov/2022090102.
[7] "Mitigation Monitoring and Reporting Program." Los Angeles County Housing Element Update Program EIR. August 2021, *available at*: https://planning.lacounty.gov/wp-content/uploads/2023/07/Housing_final-peir-mitigation-monitoring.pdf.

While the Project is not located in Los Angeles County, the use of low-VOC paints would nonetheless decrease the Project's significant VOC emissions.

Second, in order to reduce the GHG emissions associated with the Project, we recommend several mitigation measures (see list below).

Southern California Association of Governments ("SCAG")'s 2020 RTP/SCS Program Environmental Impact Report's Greenhouse Gas Project Level Mitigation Measures recommends:

- Measures that encourage transit use, carpooling, bike-share and car-share programs, active transportation, and parking strategies, including, but not limited to the following:
    - Promote transit-active transportation coordinated strategies,
    - Increase bicycle carrying capacity on transit and rail vehicles,
    - Improve or increase access to transit,
    - Increase access to common goods and services, such as groceries, schools, and day care,
    - Incorporate the neighborhood electric vehicle network,
    - Orient the project toward transit, bicycle and pedestrian facilities,
    - Improve pedestrian or bicycle networks, or transit service,
    - Provide traffic calming measures,
    - Provide bicycle parking,
    - Limit or eliminate park supply,
    - Unbundle parking costs,
    - Provide parking cash-out programs, and
    - Implement or provide access to commute reduction program;
- Incorporate bicycle and pedestrian facilities into project designs, maintaining these facilities, and providing amenities incentivizing their use; and planning for and building local bicycle projects that connect with the regional network;
- Improving transit access to rail and bus routes by incentives for construction and transit facilities within developments, and/or providing dedicated shuttle service to transit stations;
- Designate a percentage of parking spaces for ride-sharing vehicles or high-occupancy vehicles, and provide adequate passenger loading and unloading for those vehicles; **5A.4**
- Require at least five percent of all vehicle parking spaces include electric vehicle charging stations, or at a minimum, require the appropriate infrastructure to facilitate sufficient electric charging for passenger vehicles and trucks to plug-in;
- Implement preferential parking permit program;
- Adopting employer trip reduction measures to reduce employee trips such as vanpool and carpool programs, providing end-of-trip facilities, and telecommuting programs including but not limited to measures that:
    - Provide car-sharing, bike sharing, and ride-sharing programs,
    - Provide transit passes,
    - Shift single occupancy vehicle trips to carpooling or vanpooling, for example providing ride-matching services,

- Provide incentives or subsidies that increase that use of modes other than single-occupancy vehicle, and
- Provide on-site amenities at places of work, such as priority parking for carpools and vanpools, secure bike parking, and showers and locker rooms.

The California Air Resources Board ("CARB") recommends: [8]

- Ensuring the cleanest possible construction practices and equipment are used. This includes eliminating the idling of diesel-powered equipment and providing the necessary infrastructure (e.g., electrical hookups) to support zero and near-zero equipment and tools;
- Requiring all off-road diesel-powered equipment used during construction to be equipped with Tier 4 or cleaner engines, except for specialized construction equipment in which Tier 4 engines are not available. In place of Tier 4 engines, off-road equipment can incorporate retrofits, such that, emission reductions achieved are equal to or exceed that of a Tier 4 engine;
- Requiring all heavy-duty trucks entering the construction site during the grading and building construction phases be model year 2014 or later. All heavy-duty haul trucks should also meet CARB's lowest optional low-oxides of nitrogen (NOx) standard starting in the year 2022;
- Require all construction equipment and fleets to be in compliance with all current air quality regulations;
- Requiring all loading/unloading docks and trailer spaces be equipped with electrical hookups for trucks with transport refrigeration units (TRU) or auxiliary power units; **5A.4**
- Requiring all TRUs entering the project-site be plug-in capable;
- Requiring all service equipment (e.g., yard hostlers, yard equipment, forklifts, and pallet jacks) used within the project site to be zero-emission;
- Requiring future tenants to exclusively use zero-emission light and medium-duty delivery trucks and vans;
- Including contractual language in tenant lease agreements restricting trucks and support equipment from idling longer than two minutes while on site; and
- Requiring the installing of vegetative walls or other effective barriers that separate loading docks and people living or working nearby.

The DOJ recommends: [9]

- 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;

[8] "Recommended Air Pollution Emission Reduction Measures for Warehouses and Distribution Centers." CARB, August 2023, *available at*: https://ww2.arb.ca.gov/sites/default/files/2023-08/CARB%20Comments%20-%20NOP%20for%20the%20%20Oak%20Valley%20North%20Project%20DEIR.pdf; Attachment A, p. 5 – 8.
[9] *Ibid.* p. 9 – 10.

- Oversizing electrical rooms by 25 percent or providing a secondary electrical room to accommodate future expansion of electric vehicle charging capability;
- Requiring all stand-by emergency generators to be powered by a non-diesel fuel;
- 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;
- 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;
- Constructing and maintaining electric light-duty vehicle charging stations proportional to the number of employee parking spaces;
- Running conduit to an additional proportion of employee parking spaces for a future increase in the number of electric light-duty charging stations;
- Requiring facility operators to train managers and employees on efficient scheduling and load management to eliminate unnecessary queuing and idling of trucks;
- Providing meal options onsite or shuttles between the facility and nearby meal destinations. **5A.4**
- Posting signs at every truck exit driveway providing directional information to the truck route;
- 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; and
- Providing tenants with information on incentive programs, such as the Carl Moyer Program and Voucher Incentive Program, to upgrade their fleets.

SCAQMD staff recommends: [10]

- Maximizing the use of solar energy by installing solar energy arrays;
- Using light-colored paving and roofing materials; and
- Utilizing only Energy Star heating, cooling, and lighting devices and appliances.

CEQA Guidelines 15126.4 (c)(3) include "[o]ffsite measures, including offsets that are not otherwise required, to mitigate a project's emissions" as an option for GHG mitigation.[11] An example of this was in

[10] "Draft Environmental Impact Report (EIR) for the Proposed CADO Menifee Industrial Warehouse Project (Proposed Project)." SCAQMD, April 2024, *available at*: https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2024/april-2024/RVC240313-05.pdf?sfvrsn=8, p. 3.

[11] "Cal. Code Regs. tit. 14 § 15126.4." CEQA Guidelines, May 2024, *available at*: https://casetext.com/regulation/california-code-of-regulations/title-14-natural-resources/division-6-resources-agency/chapter-3-guidelines-for-implementation-of-the-california-environmental-quality-act/article-9-contents-of-environmental-impact-reports/section-151264-consideration-and-discussion-of-mitigation-measures-proposed-to-minimize-significant-effects.

the case of the Oakland Sports and Mixed-Use Project, where off-site reduction measures in the neighboring communities were recommended.[12] We recommend consideration of local carbon offset programs to reduce the Project's GHG impacts as a measure of last result.

As demonstrated above, we have provided several mitigation measures that would reduce Project-related ROG and GHG emissions developed from sources including SCAG, the DOJ and others. These measures offer a cost-effective, feasible way to incorporate lower-emitting design features into the **5A.4**
proposed Project, which subsequently reduce emissions released during Project construction and operation.

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

Disclaimer

SWAPE has received limited discovery regarding this project. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is **5A.5**
made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,

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

Paul E. Rosenfeld, Ph.D.

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[12] "Cal. Pub. Resources Code § 21168.6.7." 2023, *available at*: https://casetext.com/statute/california-codes/california-public-resources-code/division-13-environmental-quality/chapter-6-limitations/section-2116867-oakland-sports-and-mixed-use-project-conditions-for-approval-certification-of-project-for-streamlining.

Attachment A: Construction Calculations

Attachment B: 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
Demolition	20	559	0.0358	549	20
Site Preparation	10	559	0.0179	549	10
Grading	30	559	0.0537	549	29
Construction	300	559	0.5367	549	295
Paving	20	559	0.0358	549	20
Architectural Coating	20	559	0.0358	549	20

	Total Default Construction Duration		Revised Construction Duration
Start Date	3/1/2024		3/1/2024
End Date	9/11/2025		9/1/2025
Total Days	559		549

Attachment B

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

880 Doolittle Drive Industrial Project

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	245.20	1000sqft	5.63	245,200.00	0
Parking Lot	401.79	1000sqft	9.22	401,790.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	4			**Operational Year**	2025
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the DEIR's model

Land Use - Consistent with DEIR's model

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

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

Grading - Consistent with the DEIR's model

Vehicle Trips - Consistent with the DEIR's model

Construction Off-road Equipment Mitigation - Consistent with DEIR's model.

Fleet Mix - Consistent with the DEIR's model.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	300.00	295.00
tblConstructionPhase	NumDays	30.00	29.00
tblFleetMix	HHD	0.01	0.00
tblFleetMix	HHD	0.01	1.00
tblFleetMix	LDA	0.57	1.00
tblFleetMix	LDA	0.57	0.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.2110e-003	0.00
tblFleetMix	LHD2	5.2110e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MH	2.4230e-003	0.00
tblFleetMix	MH	2.4230e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	7.9000e-004	0.00
tblFleetMix	OBUS	7.9000e-004	0.00
tblFleetMix	SBUS	3.4300e-004	0.00
tblFleetMix	SBUS	3.4300e-004	0.00
tblFleetMix	UBUS	5.6000e-004	0.00

tblFleetMix	UBUS	5.6000e-004	0.00
tblGrading	MaterialExported	0.00	15,000.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	65.50
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	6.42	6.25
tblVehicleTrips	ST_TR	0.00	0.12
tblVehicleTrips	SU_TR	5.09	6.25
tblVehicleTrips	SU_TR	0.00	0.12
tblVehicleTrips	WD_TR	3.93	6.25
tblVehicleTrips	WD_TR	0.00	0.12

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.2716	2.4842	2.6755	7.4300e-003	0.4796	0.0915	0.5711	0.1708	0.0855	0.2562	0.0000	677.4208	677.4208	0.0940	0.0361	690.5409
2025	1.5293	1.2890	1.7248	4.6900e-003	0.1991	0.0432	0.2423	0.0541	0.0406	0.0947	0.0000	428.9692	428.9692	0.0485	0.0231	437.0687
Maximum	**1.5293**	**2.4842**	**2.6755**	**7.4300e-003**	**0.4796**	**0.0915**	**0.5711**	**0.1708**	**0.0855**	**0.2562**	**0.0000**	**677.4208**	**677.4208**	**0.0940**	**0.0361**	**690.5409**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.2716	2.4842	2.6755	7.4300e-003	0.4675	0.0915	0.5589	0.1678	0.0855	0.2533	0.0000	677.4204	677.4204	0.0940	0.0361	690.5405
2025	1.5293	1.2890	1.7248	4.6900e-003	0.1892	0.0432	0.2324	0.0516	0.0406	0.0922	0.0000	428.9690	428.9690	0.0485	0.0231	437.0685
Maximum	**1.5293**	**2.4842**	**2.6755**	**7.4300e-003**	**0.4675**	**0.0915**	**0.5589**	**0.1678**	**0.0855**	**0.2533**	**0.0000**	**677.4204**	**677.4204**	**0.0940**	**0.0361**	**690.5405**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	3.24	0.00	2.71	2.40	0.00	1.54	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	3-1-2024	5-31-2024	1.1724	1.1724
2	6-1-2024	8-31-2024	0.6769	0.6769
3	9-1-2024	11-30-2024	0.6775	0.6775
4	12-1-2024	2-28-2025	0.6492	0.6492
5	3-1-2025	5-31-2025	0.6425	0.6425
6	6-1-2025	8-31-2025	1.6082	1.6082
7	9-1-2025	9-30-2025	0.1476	0.1476
		Highest	1.6082	1.6082

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	1.1204	5.0000e-005	5.9300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0116	0.0116	3.0000e-005	0.0000	0.0123
Energy	0.0346	0.3147	0.2643	1.8900e-003		0.0239	0.0239		0.0239	0.0239	0.0000	539.3348	539.3348	0.0384	0.0101	543.3162
Mobile	0.2280	0.1014	1.2836	3.0000e-004	0.0000	1.0100e-003	1.0100e-003	0.0000	9.3000e-004	9.3000e-004	0.0000	28.2398	28.2398	0.0240	0.0130	32.7025
Waste						0.0000	0.0000		0.0000	0.0000	61.7194	0.0000	61.7194	3.6475	0.0000	152.9072
Water						0.0000	0.0000		0.0000	0.0000	17.9891	28.3879	46.3770	1.8522	0.0442	105.8498
Total	**1.3830**	**0.4161**	**1.5539**	**2.1900e-003**	**0.0000**	**0.0250**	**0.0250**	**0.0000**	**0.0249**	**0.0249**	**79.7085**	**595.9741**	**675.6826**	**5.5622**	**0.0673**	**834.7881**

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	1.1204	5.0000e-005	5.9300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0116	0.0116	3.0000e-005	0.0000	0.0123
Energy	0.0346	0.3147	0.2643	1.8900e-003		0.0239	0.0239		0.0239	0.0239	0.0000	539.3348	539.3348	0.0384	0.0101	543.3162
Mobile	0.2280	0.1014	1.2836	3.0000e-004	0.0000	1.0100e-003	1.0100e-003	0.0000	9.3000e-004	9.3000e-004	0.0000	28.2398	28.2398	0.0240	0.0130	32.7025
Waste						0.0000	0.0000		0.0000	0.0000	61.7194	0.0000	61.7194	3.6475	0.0000	152.9072
Water						0.0000	0.0000		0.0000	0.0000	17.9891	28.3879	46.3770	1.8522	0.0442	105.8498
Total	**1.3830**	**0.4161**	**1.5539**	**2.1900e-003**	**0.0000**	**0.0250**	**0.0250**	**0.0000**	**0.0249**	**0.0249**	**79.7085**	**595.9741**	**675.6826**	**5.5622**	**0.0673**	**834.7881**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/1/2024	3/28/2024	5	20	
2	Site Preparation	Site Preparation	3/29/2024	4/11/2024	5	10	
3	Grading	Grading	4/12/2024	5/22/2024	5	29	

4	Building Construction	Building Construction	5/23/2024	7/9/2025	5	295	
5	Paving	Paving	7/10/2025	8/6/2025	5	20	
6	Architectural Coating	Architectural Coating	8/7/2025	9/3/2025	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 87

Acres of Paving: 9.22

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 367,800; Non-Residential Outdoor: 122,600; Striped Parking Area: 24,107 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Generator Sets	1	8.00	84	0.74
Demolition	Other Construction Equipment	1	8.00	172	0.42
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37

Building Construction	Welders		1	8.00	46	0.45
Paving	Pavers		2	8.00	130	0.42
Paving	Paving Equipment		2	8.00	132	0.36
Paving	Rollers		2	8.00	80	0.38
Architectural Coating	Air Compressors		1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	9	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	1,875.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	272.00	106.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	54.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0301	0.2808	0.2962	5.5000e-004		0.0130	0.0130		0.0122	0.0122	0.0000	47.8129	47.8129	0.0124	0.0000	48.1224
Total	**0.0301**	**0.2808**	**0.2962**	**5.5000e-004**		**0.0130**	**0.0130**		**0.0122**	**0.0122**	**0.0000**	**47.8129**	**47.8129**	**0.0124**	**0.0000**	**48.1224**

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	5.6000e-004	3.7000e-004	4.7900e-003	1.0000e-005	1.8200e-003	1.0000e-005	1.8300e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.3984	1.3984	4.0000e-005	4.0000e-005	1.4104
Total	**5.6000e-004**	**3.7000e-004**	**4.7900e-003**	**1.0000e-005**	**1.8200e-003**	**1.0000e-005**	**1.8300e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.3984**	**1.3984**	**4.0000e-005**	**4.0000e-005**	**1.4104**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0301	0.2808	0.2962	5.5000e-004		0.0130	0.0130		0.0122	0.0122	0.0000	47.8128	47.8128	0.0124	0.0000	48.1224
Total	**0.0301**	**0.2808**	**0.2962**	**5.5000e-004**		**0.0130**	**0.0130**		**0.0122**	**0.0122**	**0.0000**	**47.8128**	**47.8128**	**0.0124**	**0.0000**	**48.1224**

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	5.6000e-004	3.7000e-004	4.7900e-003	1.0000e-005	1.7200e-003	1.0000e-005	1.7300e-003	4.6000e-004	1.0000e-005	4.7000e-004	0.0000	1.3984	1.3984	4.0000e-005	4.0000e-005	1.4104
Total	**5.6000e-004**	**3.7000e-004**	**4.7900e-003**	**1.0000e-005**	**1.7200e-003**	**1.0000e-005**	**1.7300e-003**	**4.6000e-004**	**1.0000e-005**	**4.7000e-004**	**0.0000**	**1.3984**	**1.3984**	**4.0000e-005**	**4.0000e-005**	**1.4104**

3.3 Site Preparation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1359	0.0917	1.9000e-004		6.1500e-003	6.1500e-003		5.6600e-003	5.6600e-003	0.0000	16.7285	16.7285	5.4100e-003	0.0000	16.8638
Total	**0.0133**	**0.1359**	**0.0917**	**1.9000e-004**	**0.0983**	**6.1500e-003**	**0.1044**	**0.0505**	**5.6600e-003**	**0.0562**	**0.0000**	**16.7285**	**16.7285**	**5.4100e-003**	**0.0000**	**16.8638**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	1.4000e-004	1.8700e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5472	0.5472	1.0000e-005	1.0000e-005	0.5519
Total	**2.2000e-004**	**1.4000e-004**	**1.8700e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5472**	**0.5472**	**1.0000e-005**	**1.0000e-005**	**0.5519**

3.3 Site Preparation - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1359	0.0917	1.9000e-004		6.1500e-003	6.1500e-003		5.6500e-003	5.6500e-003	0.0000	16.7285	16.7285	5.4100e-003	0.0000	16.8638
Total	**0.0133**	**0.1359**	**0.0917**	**1.9000e-004**	**0.0983**	**6.1500e-003**	**0.1044**	**0.0505**	**5.6500e-003**	**0.0562**	**0.0000**	**16.7285**	**16.7285**	**5.4100e-003**	**0.0000**	**16.8638**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	1.4000e-004	1.8700e-003	1.0000e-005	6.7000e-004	0.0000	6.8000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5472	0.5472	1.0000e-005	1.0000e-005	0.5519
Total	**2.2000e-004**	**1.4000e-004**	**1.8700e-003**	**1.0000e-005**	**6.7000e-004**	**0.0000**	**6.8000e-004**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**0.5472**	**0.5472**	**1.0000e-005**	**1.0000e-005**	**0.5519**

3.4 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1343	0.0000	0.1343	0.0531	0.0000	0.0531	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0467	0.4695	0.4020	9.0000e-004		0.0194	0.0194		0.0178	0.0178	0.0000	79.0533	79.0533	0.0256	0.0000	79.6925
Total	**0.0467**	**0.4695**	**0.4020**	**9.0000e-004**	**0.1343**	**0.0194**	**0.1537**	**0.0531**	**0.0178**	**0.0709**	**0.0000**	**79.0533**	**79.0533**	**0.0256**	**0.0000**	**79.6925**

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	1.9300e-003	0.1237	0.0281	5.5000e-004	0.0159	1.0600e-003	0.0170	4.3700e-003	1.0100e-003	5.3900e-003	0.0000	53.8271	53.8271	1.1700e-003	8.5100e-003	56.3909
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	7.1000e-004	4.6000e-004	6.0400e-003	2.0000e-005	2.2900e-003	1.0000e-005	2.3000e-003	6.1000e-004	1.0000e-005	6.2000e-004	0.0000	1.7632	1.7632	5.0000e-005	5.0000e-005	1.7783
Total	**2.6400e-003**	**0.1242**	**0.0341**	**5.7000e-004**	**0.0182**	**1.0700e-003**	**0.0193**	**4.9800e-003**	**1.0200e-003**	**6.0100e-003**	**0.0000**	**55.5902**	**55.5902**	**1.2200e-003**	**8.5600e-003**	**58.1692**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1343	0.0000	0.1343	0.0531	0.0000	0.0531	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0467	0.4695	0.4020	9.0000e-004		0.0194	0.0194		0.0178	0.0178	0.0000	79.0532	79.0532	0.0256	0.0000	79.6924
Total	**0.0467**	**0.4695**	**0.4020**	**9.0000e-004**	**0.1343**	**0.0194**	**0.1537**	**0.0531**	**0.0178**	**0.0709**	**0.0000**	**79.0532**	**79.0532**	**0.0256**	**0.0000**	**79.6924**

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	1.9300e-003	0.1237	0.0281	5.5000e-004	0.0152	1.0600e-003	0.0162	4.2000e-003	1.0100e-003	5.2100e-003	0.0000	53.8271	53.8271	1.1700e-003	8.5100e-003	56.3909
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	7.1000e-004	4.6000e-004	6.0400e-003	2.0000e-005	2.1700e-003	1.0000e-005	2.1900e-003	5.8000e-004	1.0000e-005	5.9000e-004	0.0000	1.7632	1.7632	5.0000e-005	5.0000e-005	1.7783
Total	**2.6400e-003**	**0.1242**	**0.0341**	**5.7000e-004**	**0.0174**	**1.0700e-003**	**0.0184**	**4.7800e-003**	**1.0200e-003**	**5.8000e-003**	**0.0000**	**55.5902**	**55.5902**	**1.2200e-003**	**8.5600e-003**	**58.1692**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1170	1.0688	1.2853	2.1400e-003		0.0488	0.0488		0.0459	0.0459	0.0000	184.3200	184.3200	0.0436	0.0000	185.4097
Total	**0.1170**	**1.0688**	**1.2853**	**2.1400e-003**		**0.0488**	**0.0488**		**0.0459**	**0.0459**	**0.0000**	**184.3200**	**184.3200**	**0.0436**	**0.0000**	**185.4097**

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	8.3100e-003	0.3699	0.1093	1.6600e-003	0.0554	2.2400e-003	0.0576	0.0160	2.1500e-003	0.0182	0.0000	160.4992	160.4992	2.2200e-003	0.0241	167.7208
Worker	0.0529	0.0347	0.4503	1.4000e-003	0.1710	8.5000e-004	0.1718	0.0455	7.8000e-004	0.0463	0.0000	131.4710	131.4710	3.6000e-003	3.4900e-003	132.6003
Total	**0.0612**	**0.4046**	**0.5597**	**3.0600e-003**	**0.2263**	**3.0900e-003**	**0.2294**	**0.0615**	**2.9300e-003**	**0.0644**	**0.0000**	**291.9702**	**291.9702**	**5.8200e-003**	**0.0275**	**300.3211**

3.5 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1170	1.0688	1.2853	2.1400e-003		0.0488	0.0488		0.0459	0.0459	0.0000	184.3198	184.3198	0.0436	0.0000	185.4095
Total	**0.1170**	**1.0688**	**1.2853**	**2.1400e-003**		**0.0488**	**0.0488**		**0.0459**	**0.0459**	**0.0000**	**184.3198**	**184.3198**	**0.0436**	**0.0000**	**185.4095**

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	8.3100e-003	0.3699	0.1093	1.6600e-003	0.0530	2.2400e-003	0.0553	0.0154	2.1500e-003	0.0176	0.0000	160.4992	160.4992	2.2200e-003	0.0241	167.7208
Worker	0.0529	0.0347	0.4503	1.4000e-003	0.1621	8.5000e-004	0.1630	0.0433	7.8000e-004	0.0441	0.0000	131.4710	131.4710	3.6000e-003	3.4900e-003	132.6003
Total	**0.0612**	**0.4046**	**0.5597**	**3.0600e-003**	**0.2151**	**3.0900e-003**	**0.2182**	**0.0588**	**2.9300e-003**	**0.0617**	**0.0000**	**291.9702**	**291.9702**	**5.8200e-003**	**0.0275**	**300.3211**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0930	0.8479	1.0938	1.8300e-003		0.0359	0.0359		0.0338	0.0338	0.0000	157.7052	157.7052	0.0371	0.0000	158.6320
Total	**0.0930**	**0.8479**	**1.0938**	**1.8300e-003**		**0.0359**	**0.0359**		**0.0338**	**0.0338**	**0.0000**	**157.7052**	**157.7052**	**0.0371**	**0.0000**	**158.6320**

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	6.9600e-003	0.3161	0.0920	1.3900e-003	0.0474	1.9200e-003	0.0493	0.0137	1.8400e-003	0.0155	0.0000	134.8364	134.8364	1.9000e-003	0.0202	140.9065
Worker	0.0425	0.0267	0.3617	1.1600e-003	0.1462	6.9000e-004	0.1469	0.0389	6.4000e-004	0.0395	0.0000	109.7604	109.7604	2.8000e-003	2.8000e-003	110.6640
Total	**0.0494**	**0.3428**	**0.4537**	**2.5500e-003**	**0.1936**	**2.6100e-003**	**0.1962**	**0.0526**	**2.4800e-003**	**0.0551**	**0.0000**	**244.5968**	**244.5968**	**4.7000e-003**	**0.0230**	**251.5705**

3.5 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0930	0.8479	1.0938	1.8300e-003		0.0359	0.0359		0.0338	0.0338	0.0000	157.7050	157.7050	0.0371	0.0000	158.6318
Total	**0.0930**	**0.8479**	**1.0938**	**1.8300e-003**		**0.0359**	**0.0359**		**0.0338**	**0.0338**	**0.0000**	**157.7050**	**157.7050**	**0.0371**	**0.0000**	**158.6318**

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	6.9600e-003	0.3161	0.0920	1.3900e-003	0.0454	1.9200e-003	0.0473	0.0132	1.8400e-003	0.0151	0.0000	134.8364	134.8364	1.9000e-003	0.0202	140.9065
Worker	0.0425	0.0267	0.3617	1.1600e-003	0.1387	6.9000e-004	0.1394	0.0370	6.4000e-004	0.0377	0.0000	109.7604	109.7604	2.8000e-003	2.8000e-003	110.6640
Total	**0.0494**	**0.3428**	**0.4537**	**2.5500e-003**	**0.1840**	**2.6100e-003**	**0.1866**	**0.0503**	**2.4800e-003**	**0.0527**	**0.0000**	**244.5968**	**244.5968**	**4.7000e-003**	**0.0230**	**251.5705**

3.6 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.1500e-003	0.0858	0.1458	2.3000e-004		4.1900e-003	4.1900e-003		3.8500e-003	3.8500e-003	0.0000	20.0193	20.0193	6.4700e-003	0.0000	20.1811
Paving	0.0121					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0212**	**0.0858**	**0.1458**	**2.3000e-004**		**4.1900e-003**	**4.1900e-003**		**3.8500e-003**	**3.8500e-003**	**0.0000**	**20.0193**	**20.0193**	**6.4700e-003**	**0.0000**	**20.1811**

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	3.4000e-004	2.2000e-004	2.9300e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.8901	0.8901	2.0000e-005	2.0000e-005	0.8975
Total	**3.4000e-004**	**2.2000e-004**	**2.9300e-003**	**1.0000e-005**	**1.1900e-003**	**1.0000e-005**	**1.1900e-003**	**3.2000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.8901**	**0.8901**	**2.0000e-005**	**2.0000e-005**	**0.8975**

3.6 Paving - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.1500e-003	0.0858	0.1458	2.3000e-004		4.1900e-003	4.1900e-003		3.8500e-003	3.8500e-003	0.0000	20.0192	20.0192	6.4700e-003	0.0000	20.1811
Paving	0.0121					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0212**	**0.0858**	**0.1458**	**2.3000e-004**		**4.1900e-003**	**4.1900e-003**		**3.8500e-003**	**3.8500e-003**	**0.0000**	**20.0192**	**20.0192**	**6.4700e-003**	**0.0000**	**20.1811**

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	3.4000e-004	2.2000e-004	2.9300e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	0.8901	0.8901	2.0000e-005	2.0000e-005	0.8975
Total	**3.4000e-004**	**2.2000e-004**	**2.9300e-003**	**1.0000e-005**	**1.1200e-003**	**1.0000e-005**	**1.1300e-003**	**3.0000e-004**	**1.0000e-005**	**3.1000e-004**	**0.0000**	**0.8901**	**0.8901**	**2.0000e-005**	**2.0000e-005**	**0.8975**

3.7 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3624					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0115	0.0181	3.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567
Total	**1.3641**	**0.0115**	**0.0181**	**3.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5567**

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	1.2400e-003	7.8000e-004	0.0106	3.0000e-005	4.2700e-003	2.0000e-005	4.2900e-003	1.1400e-003	2.0000e-005	1.1500e-003	0.0000	3.2045	3.2045	8.0000e-005	8.0000e-005	3.2309
Total	**1.2400e-003**	**7.8000e-004**	**0.0106**	**3.0000e-005**	**4.2700e-003**	**2.0000e-005**	**4.2900e-003**	**1.1400e-003**	**2.0000e-005**	**1.1500e-003**	**0.0000**	**3.2045**	**3.2045**	**8.0000e-005**	**8.0000e-005**	**3.2309**

3.7 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3624					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0115	0.0181	3.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567
Total	**1.3641**	**0.0115**	**0.0181**	**3.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5567**

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	1.2400e-003	7.8000e-004	0.0106	3.0000e-005	4.0500e-003	2.0000e-005	4.0700e-003	1.0800e-003	2.0000e-005	1.1000e-003	0.0000	3.2045	3.2045	8.0000e-005	8.0000e-005	3.2309
Total	**1.2400e-003**	**7.8000e-004**	**0.0106**	**3.0000e-005**	**4.0500e-003**	**2.0000e-005**	**4.0700e-003**	**1.0800e-003**	**2.0000e-005**	**1.1000e-003**	**0.0000**	**3.2045**	**3.2045**	**8.0000e-005**	**8.0000e-005**	**3.2309**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2280	0.1014	1.2836	3.0000e-004	0.0000	1.0100e-003	1.0100e-003	0.0000	9.3000e-004	9.3000e-004	0.0000	28.2398	28.2398	0.0240	0.0130	32.7025
Unmitigated	0.2280	0.1014	1.2836	3.0000e-004	0.0000	1.0100e-003	1.0100e-003	0.0000	9.3000e-004	9.3000e-004	0.0000	28.2398	28.2398	0.0240	0.0130	32.7025

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	1,532.50	1,532.50	1532.50		
Parking Lot	0.00	0.00	0.00		
Total	1,532.50	1,532.50	1,532.50		

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
Manufacturing	0.00	0.00	65.50	100.00	0.00	0.00	100	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	100	0	0

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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	196.7746	196.7746	0.0318	3.8600e-003	198.7204
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	196.7746	196.7746	0.0318	3.8600e-003	198.7204
NaturalGas Mitigated	0.0346	0.3147	0.2643	1.8900e-003		0.0239	0.0239		0.0239	0.0239	0.0000	342.5602	342.5602	6.5700e-003	6.2800e-003	344.5959
NaturalGas Unmitigated	0.0346	0.3147	0.2643	1.8900e-003		0.0239	0.0239		0.0239	0.0239	0.0000	342.5602	342.5602	6.5700e-003	6.2800e-003	344.5959

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					
Manufacturing	6.41934e+006	0.0346	0.3147	0.2643	1.8900e-003		0.0239	0.0239		0.0239	0.0239	0.0000	342.5602	342.5602	6.5700e-003	6.2800e-003	344.5959
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
Total		**0.0346**	**0.3147**	**0.2643**	**1.8900e-003**		**0.0239**	**0.0239**		**0.0239**	**0.0239**	**0.0000**	**342.5602**	**342.5602**	**6.5700e-003**	**6.2800e-003**	**344.5959**

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					
Manufacturing	6.41934e+006	0.0346	0.3147	0.2643	1.8900e-003		0.0239	0.0239		0.0239	0.0239	0.0000	342.5602	342.5602	6.5700e-003	6.2800e-003	344.5959
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
Total		**0.0346**	**0.3147**	**0.2643**	**1.8900e-003**		**0.0239**	**0.0239**		**0.0239**	**0.0239**	**0.0000**	**342.5602**	**342.5602**	**6.5700e-003**	**6.2800e-003**	**344.5959**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	1.98612e +006	183.7633	0.0297	3.6000e-003	185.5804
Parking Lot	140627	13.0113	2.1000e-003	2.6000e-004	13.1400
Total		**196.7746**	**0.0318**	**3.8600e-003**	**198.7204**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	1.98612e +006	183.7633	0.0297	3.6000e-003	185.5804
Parking Lot	140627	13.0113	2.1000e-003	2.6000e-004	13.1400
Total		**196.7746**	**0.0318**	**3.8600e-003**	**198.7204**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive 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	1.1204	5.0000e-005	5.9300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0116	0.0116	3.0000e-005	0.0000	0.0123
Unmitigated	1.1204	5.0000e-005	5.9300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0116	0.0116	3.0000e-005	0.0000	0.0123

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	0.1362					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9836					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.5000e-004	5.0000e-005	5.9300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0116	0.0116	3.0000e-005	0.0000	0.0123
Total	**1.1204**	**5.0000e-005**	**5.9300e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0116**	**0.0116**	**3.0000e-005**	**0.0000**	**0.0123**

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	0.1362					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9836					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.5000e-004	5.0000e-005	5.9300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0116	0.0116	3.0000e-005	0.0000	0.0123
Total	**1.1204**	**5.0000e-005**	**5.9300e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0116**	**0.0116**	**3.0000e-005**	**0.0000**	**0.0123**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	46.3770	1.8522	0.0442	105.8498
Unmitigated	46.3770	1.8522	0.0442	105.8498

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	56.7025 / 0	46.3770	1.8522	0.0442	105.8498
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**46.3770**	**1.8522**	**0.0442**	**105.8498**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	56.7025 / 0	46.3770	1.8522	0.0442	105.8498
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**46.3770**	**1.8522**	**0.0442**	**105.8498**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	61.7194	3.6475	0.0000	152.9072
Unmitigated	61.7194	3.6475	0.0000	152.9072

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	304.05	61.7194	3.6475	0.0000	152.9072
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**61.7194**	**3.6475**	**0.0000**	**152.9072**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	304.05	61.7194	3.6475	0.0000	152.9072
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**61.7194**	**3.6475**	**0.0000**	**152.9072**

9.0 Operational Offroad

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

880 Doolittle Drive Industrial Project

Alameda County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	245.20	1000sqft	5.63	245,200.00	0
Parking Lot	401.79	1000sqft	9.22	401,790.00	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.2 **Precipitation Freq (Days)** 63

Climate Zone 4 **Operational Year** 2025

Utility Company Pacific Gas and Electric Company

CO2 Intensity (lb/MWhr) 203.98 **CH4 Intensity (lb/MWhr)** 0.033 **N2O Intensity (lb/MWhr)** 0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the DEIR's model

Land Use - Consistent with DEIR's model

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

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

Grading - Consistent with the DEIR's model

Vehicle Trips - Consistent with the DEIR's model

Construction Off-road Equipment Mitigation - Consistent with DEIR's model.

Fleet Mix - Consistent with the DEIR's model.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	300.00	295.00
tblConstructionPhase	NumDays	30.00	29.00
tblFleetMix	HHD	0.01	0.00
tblFleetMix	HHD	0.01	1.00
tblFleetMix	LDA	0.57	1.00
tblFleetMix	LDA	0.57	0.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.2110e-003	0.00
tblFleetMix	LHD2	5.2110e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MH	2.4230e-003	0.00
tblFleetMix	MH	2.4230e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	7.9000e-004	0.00
tblFleetMix	OBUS	7.9000e-004	0.00
tblFleetMix	SBUS	3.4300e-004	0.00
tblFleetMix	SBUS	3.4300e-004	0.00
tblFleetMix	UBUS	5.6000e-004	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblFleetMix	UBUS	5.6000e-004	0.00
tblGrading	MaterialExported	0.00	15,000.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	65.50
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	6.42	6.25
tblVehicleTrips	ST_TR	0.00	0.12
tblVehicleTrips	SU_TR	5.09	6.25
tblVehicleTrips	SU_TR	0.00	0.12
tblVehicleTrips	WD_TR	3.93	6.25
tblVehicleTrips	WD_TR	0.00	0.12

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	3.4070	40.6252	30.1344	0.1014	19.8049	1.4092	21.0349	10.1417	1.2992	11.2733	0.0000	10,243.2672	10,243.2672	2.0359	0.6496	10,487.7344
2025	136.5390	17.2997	23.1216	0.0657	2.9529	0.5660	3.5188	0.7995	0.5326	1.3322	0.0000	6,643.8970	6,643.8970	0.7160	0.3690	6,770.6916
Maximum	**136.5390**	**40.6252**	**30.1344**	**0.1014**	**19.8049**	**1.4092**	**21.0349**	**10.1417**	**1.2992**	**11.2733**	**0.0000**	**10,243.2672**	**10,243.2672**	**2.0359**	**0.6496**	**10,487.7344**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	3.4070	40.6252	30.1344	0.1014	19.7972	1.4092	21.0272	10.1398	1.2992	11.2714	0.0000	10,243.2672	10,243.2672	2.0359	0.6496	10,487.7344
2025	136.5390	17.2997	23.1216	0.0657	2.8057	0.5660	3.3716	0.7634	0.5326	1.2961	0.0000	6,643.8970	6,643.8970	0.7160	0.3690	6,770.6916
Maximum	**136.5390**	**40.6252**	**30.1344**	**0.1014**	**19.7972**	**1.4092**	**21.0272**	**10.1398**	**1.2992**	**11.2714**	**0.0000**	**10,243.2672**	**10,243.2672**	**2.0359**	**0.6496**	**10,487.7344**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.68	0.00	0.63	0.35	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.1422	6.0000e-004	0.0659	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1416	0.1416	3.7000e-004		0.1508
Energy	0.1897	1.7242	1.4484	0.0104		0.1310	0.1310		0.1310	0.1310		2,069.0849	2,069.0849	0.0397	0.0379	2,081.3805
Mobile	1.4432	0.4882	5.4081	1.6100e-003	0.0000	5.5800e-003	5.5800e-003	0.0000	5.1300e-003	5.1300e-003		168.1517	168.1517	0.1210	0.0714	192.4669
Total	**7.7750**	**2.2130**	**6.9224**	**0.0120**	**0.0000**	**0.1369**	**0.1369**	**0.0000**	**0.1364**	**0.1364**		**2,237.3782**	**2,237.3782**	**0.1610**	**0.1094**	**2,273.9982**

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	6.1422	6.0000e-004	0.0659	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1416	0.1416	3.7000e-004		0.1508
Energy	0.1897	1.7242	1.4484	0.0104		0.1310	0.1310		0.1310	0.1310		2,069.0849	2,069.0849	0.0397	0.0379	2,081.3805
Mobile	1.4432	0.4882	5.4081	1.6100e-003	0.0000	5.5800e-003	5.5800e-003	0.0000	5.1300e-003	5.1300e-003		168.1517	168.1517	0.1210	0.0714	192.4669
Total	**7.7750**	**2.2130**	**6.9224**	**0.0120**	**0.0000**	**0.1369**	**0.1369**	**0.0000**	**0.1364**	**0.1364**		**2,237.3782**	**2,237.3782**	**0.1610**	**0.1094**	**2,273.9982**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/1/2024	3/28/2024	5	20	
2	Site Preparation	Site Preparation	3/29/2024	4/11/2024	5	10	
3	Grading	Grading	4/12/2024	5/22/2024	5	29	
4	Building Construction	Building Construction	5/23/2024	7/9/2025	5	295	
5	Paving	Paving	7/10/2025	8/6/2025	5	20	
6	Architectural Coating	Architectural Coating	8/7/2025	9/3/2025	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 87

Acres of Paving: 9.22

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 367,800; Non-Residential Outdoor: 122,600; Striped Parking Area: 24,107 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Generator Sets	1	8.00	84	0.74
Demolition	Other Construction Equipment	1	8.00	172	0.42
Demolition	Rubber Tired Dozers	2	8.00	247	0.40

Demolition	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

<u>Trips and VMT</u>

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	9	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	1,875.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	272.00	106.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	54.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.0046	28.0819	29.6196	0.0547		1.3030	1.3030		1.2165	1.2165		5,270.4686	5,270.4686	1.3648		5,304.5878
Total	**3.0046**	**28.0819**	**29.6196**	**0.0547**		**1.3030**	**1.3030**		**1.2165**	**1.2165**		**5,270.4686**	**5,270.4686**	**1.3648**		**5,304.5878**

3.2 Demolition - 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	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	0.0597	0.0325	0.5148	1.6000e-003	0.1889	9.0000e-004	0.1898	0.0501	8.3000e-004	0.0510		164.9056	164.9056	3.9200e-003	3.7600e-003	166.1244
Total	**0.0597**	**0.0325**	**0.5148**	**1.6000e-003**	**0.1889**	**9.0000e-004**	**0.1898**	**0.0501**	**8.3000e-004**	**0.0510**		**164.9056**	**164.9056**	**3.9200e-003**	**3.7600e-003**	**166.1244**

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	3.0046	28.0819	29.6196	0.0547		1.3030	1.3030		1.2165	1.2165	0.0000	5,270.4686	5,270.4686	1.3648		5,304.5878
Total	**3.0046**	**28.0819**	**29.6196**	**0.0547**		**1.3030**	**1.3030**		**1.2165**	**1.2165**	**0.0000**	**5,270.4686**	**5,270.4686**	**1.3648**		**5,304.5878**

3.2 Demolition - 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						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	0.0597	0.0325	0.5148	1.6000e-003	0.1791	9.0000e-004	0.1800	0.0477	8.3000e-004	0.0485		164.9056	164.9056	3.9200e-003	3.7600e-003	166.1244
Total	**0.0597**	**0.0325**	**0.5148**	**1.6000e-003**	**0.1791**	**9.0000e-004**	**0.1800**	**0.0477**	**8.3000e-004**	**0.0485**		**164.9056**	**164.9056**	**3.9200e-003**	**3.7600e-003**	**166.1244**

3.3 Site Preparation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6609	27.1760	18.3356	0.0381		1.2294	1.2294		1.1310	1.1310		3,688.0100	3,688.0100	1.1928		3,717.8294
Total	**2.6609**	**27.1760**	**18.3356**	**0.0381**	**19.6570**	**1.2294**	**20.8864**	**10.1025**	**1.1310**	**11.2335**		**3,688.0100**	**3,688.0100**	**1.1928**		**3,717.8294**

3.3 Site Preparation - 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	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	0.0467	0.0254	0.4029	1.2500e-003	0.1479	7.1000e-004	0.1486	0.0392	6.5000e-004	0.0399		129.0566	129.0566	3.0700e-003	2.9400e-003	130.0104
Total	**0.0467**	**0.0254**	**0.4029**	**1.2500e-003**	**0.1479**	**7.1000e-004**	**0.1486**	**0.0392**	**6.5000e-004**	**0.0399**		**129.0566**	**129.0566**	**3.0700e-003**	**2.9400e-003**	**130.0104**

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					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6609	27.1760	18.3356	0.0381		1.2294	1.2294		1.1310	1.1310	0.0000	3,688.0100	3,688.0100	1.1928		3,717.8294
Total	**2.6609**	**27.1760**	**18.3356**	**0.0381**	**19.6570**	**1.2294**	**20.8864**	**10.1025**	**1.1310**	**11.2335**	**0.0000**	**3,688.0100**	**3,688.0100**	**1.1928**		**3,717.8294**

3.3 Site Preparation - 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	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	0.0467	0.0254	0.4029	1.2500e-003	0.1402	7.1000e-004	0.1409	0.0373	6.5000e-004	0.0380		129.0566	129.0566	3.0700e-003	2.9400e-003	130.0104
Total	**0.0467**	**0.0254**	**0.4029**	**1.2500e-003**	**0.1402**	**7.1000e-004**	**0.1409**	**0.0373**	**6.5000e-004**	**0.0380**		**129.0566**	**129.0566**	**3.0700e-003**	**2.9400e-003**	**130.0104**

3.4 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2621	0.0000	9.2621	3.6626	0.0000	3.6626			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286		6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**9.2621**	**1.3354**	**10.5975**	**3.6626**	**1.2286**	**4.8912**		**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

3.4 Grading - 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	lb/day										lb/day					
Hauling	0.1370	8.2200	1.9250	0.0379	1.1326	0.0730	1.2056	0.3106	0.0699	0.3805		4,090.1224	4,090.1224	0.0889	0.6463	4,284.9378
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	0.0519	0.0283	0.4476	1.3900e-003	0.1643	7.8000e-004	0.1651	0.0436	7.2000e-004	0.0443		143.3962	143.3962	3.4100e-003	3.2700e-003	144.4560
Total	**0.1889**	**8.2482**	**2.3726**	**0.0393**	**1.2969**	**0.0738**	**1.3707**	**0.3542**	**0.0706**	**0.4248**		**4,233.5185**	**4,233.5185**	**0.0923**	**0.6496**	**4,429.3939**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2621	0.0000	9.2621	3.6626	0.0000	3.6626			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286	0.0000	6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**9.2621**	**1.3354**	**10.5975**	**3.6626**	**1.2286**	**4.8912**	**0.0000**	**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

3.4 Grading - 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	lb/day										lb/day					
Hauling	0.1370	8.2200	1.9250	0.0379	1.0813	0.0730	1.1543	0.2980	0.0699	0.3679		4,090.1224	4,090.1224	0.0889	0.6463	4,284.9378
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	0.0519	0.0283	0.4476	1.3900e-003	0.1557	7.8000e-004	0.1565	0.0415	7.2000e-004	0.0422		143.3962	143.3962	3.4100e-003	3.2700e-003	144.4560
Total	**0.1889**	**8.2482**	**2.3726**	**0.0393**	**1.2370**	**0.0738**	**1.3108**	**0.3395**	**0.0706**	**0.4101**		**4,233.5185**	**4,233.5185**	**0.0923**	**0.6496**	**4,429.3939**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

3.5 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	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	0.1072	4.4874	1.3544	0.0208	0.7184	0.0282	0.7466	0.2069	0.0270	0.2338		2,223.825 0	2,223.825 0	0.0309	0.3330	2,323.839 3
Worker	0.7058	0.3845	6.0877	0.0189	2.2344	0.0107	2.2451	0.5927	9.8200e-003	0.6025		1,950.188 0	1,950.188 0	0.0464	0.0445	1,964.602 1
Total	**0.8130**	**4.8719**	**7.4422**	**0.0397**	**2.9528**	**0.0389**	**2.9917**	**0.7995**	**0.0368**	**0.8363**		**4,174.013 0**	**4,174.013 0**	**0.0773**	**0.3775**	**4,288.441 4**

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	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.698 9	2,555.698 9	0.6044		2,570.807 7
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.698 9**	**2,555.698 9**	**0.6044**		**2,570.807 7**

3.5 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	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	0.1072	4.4874	1.3544	0.0208	0.6877	0.0282	0.7159	0.1993	0.0270	0.2263		2,223.825 0	2,223.825 0	0.0309	0.3330	2,323.839 3
Worker	0.7058	0.3845	6.0877	0.0189	2.1179	0.0107	2.1286	0.5641	9.8200e-003	0.5739		1,950.188 0	1,950.188 0	0.0464	0.0445	1,964.602 1
Total	**0.8130**	**4.8719**	**7.4422**	**0.0397**	**2.8056**	**0.0389**	**2.8445**	**0.7634**	**0.0368**	**0.8002**		**4,174.013 0**	**4,174.013 0**	**0.0773**	**0.3775**	**4,288.441 4**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.474 4**	**2,556.474 4**	**0.6010**		**2,571.498 1**

3.5 Building Construction - 2025

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	0.1050	4.4835	1.3324	0.0205	0.7184	0.0282	0.7467	0.2069	0.0270	0.2339		2,184.1886	2,184.1886	0.0309	0.3272	2,282.4752
Worker	0.6620	0.3465	5.7045	0.0183	2.2344	0.0102	2.2446	0.5927	9.4000e-003	0.6021		1,903.2340	1,903.2340	0.0421	0.0417	1,916.7183
Total	**0.7669**	**4.8300**	**7.0369**	**0.0387**	**2.9529**	**0.0384**	**2.9913**	**0.7995**	**0.0364**	**0.8359**		**4,087.4226**	**4,087.4226**	**0.0730**	**0.3690**	**4,199.1935**

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	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

3.5 Building Construction - 2025

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	0.1050	4.4835	1.3324	0.0205	0.6878	0.0282	0.7160	0.1993	0.0270	0.2263		2,184.1886	2,184.1886	0.0309	0.3272	2,282.4752
Worker	0.6620	0.3465	5.7045	0.0183	2.1179	0.0102	2.1281	0.5641	9.4000e-003	0.5735		1,903.2340	1,903.2340	0.0421	0.0417	1,916.7183
Total	**0.7669**	**4.8300**	**7.0369**	**0.0387**	**2.8057**	**0.0384**	**2.8441**	**0.7634**	**0.0364**	**0.7998**		**4,087.4226**	**4,087.4226**	**0.0730**	**0.3690**	**4,199.1935**

3.6 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	1.2078					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1230**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

3.6 Paving - 2025

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	0.0365	0.0191	0.3146	1.0100e-003	0.1232	5.6000e-004	0.1238	0.0327	5.2000e-004	0.0332		104.9578	104.9578	2.3200e-003	2.3000e-003	105.7014
Total	**0.0365**	**0.0191**	**0.3146**	**1.0100e-003**	**0.1232**	**5.6000e-004**	**0.1238**	**0.0327**	**5.2000e-004**	**0.0332**		**104.9578**	**104.9578**	**2.3200e-003**	**2.3000e-003**	**105.7014**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	1.2078					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1230**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

3.6 Paving - 2025

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	0.0365	0.0191	0.3146	1.0100e-003	0.1168	5.6000e-004	0.1174	0.0311	5.2000e-004	0.0316		104.9578	104.9578	2.3200e-003	2.3000e-003	105.7014
Total	**0.0365**	**0.0191**	**0.3146**	**1.0100e-003**	**0.1168**	**5.6000e-004**	**0.1174**	**0.0311**	**5.2000e-004**	**0.0316**		**104.9578**	**104.9578**	**2.3200e-003**	**2.3000e-003**	**105.7014**

3.7 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	136.2367					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**136.4075**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.7 Architectural Coating - 2025

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	0.1314	0.0688	1.1325	3.6300e-003	0.4436	2.0300e-003	0.4456	0.1177	1.8700e-003	0.1195		377.8479	377.8479	8.3600e-003	8.2800e-003	380.5250
Total	**0.1314**	**0.0688**	**1.1325**	**3.6300e-003**	**0.4436**	**2.0300e-003**	**0.4456**	**0.1177**	**1.8700e-003**	**0.1195**		**377.8479**	**377.8479**	**8.3600e-003**	**8.2800e-003**	**380.5250**

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	136.2367					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**136.4075**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.7 Architectural Coating - 2025

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	0.1314	0.0688	1.1325	3.6300e-003	0.4205	2.0300e-003	0.4225	0.1120	1.8700e-003	0.1139		377.8479	377.8479	8.3600e-003	8.2800e-003	380.5250
Total	**0.1314**	**0.0688**	**1.1325**	**3.6300e-003**	**0.4205**	**2.0300e-003**	**0.4225**	**0.1120**	**1.8700e-003**	**0.1139**		**377.8479**	**377.8479**	**8.3600e-003**	**8.2800e-003**	**380.5250**

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	1.4432	0.4882	5.4081	1.6100e-003	0.0000	5.5800e-003	5.5800e-003	0.0000	5.1300e-003	5.1300e-003		168.1517	168.1517	0.1210	0.0714	192.4669
Unmitigated	1.4432	0.4882	5.4081	1.6100e-003	0.0000	5.5800e-003	5.5800e-003	0.0000	5.1300e-003	5.1300e-003		168.1517	168.1517	0.1210	0.0714	192.4669

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	1,532.50	1,532.50	1532.50		
Parking Lot	0.00	0.00	0.00		
Total	1,532.50	1,532.50	1,532.50		

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
Manufacturing	0.00	0.00	65.50	100.00	0.00	0.00	100	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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	0.1897	1.7242	1.4484	0.0104		0.1310	0.1310		0.1310	0.1310		2,069.0849	2,069.0849	0.0397	0.0379	2,081.3805
NaturalGas Unmitigated	0.1897	1.7242	1.4484	0.0104		0.1310	0.1310		0.1310	0.1310		2,069.0849	2,069.0849	0.0397	0.0379	2,081.3805

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					
Manufacturing	17587.2	0.1897	1.7242	1.4484	0.0104		0.1310	0.1310		0.1310	0.1310		2,069.0849	2,069.0849	0.0397	0.0379	2,081.3805
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
Total		**0.1897**	**1.7242**	**1.4484**	**0.0104**		**0.1310**	**0.1310**		**0.1310**	**0.1310**		**2,069.0849**	**2,069.0849**	**0.0397**	**0.0379**	**2,081.3805**

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					
Manufacturing	17.5872	0.1897	1.7242	1.4484	0.0104		0.1310	0.1310		0.1310	0.1310		2,069.0849	2,069.0849	0.0397	0.0379	2,081.3805
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
Total		**0.1897**	**1.7242**	**1.4484**	**0.0104**		**0.1310**	**0.1310**		**0.1310**	**0.1310**		**2,069.0849**	**2,069.0849**	**0.0397**	**0.0379**	**2,081.3805**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	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	6.1422	6.0000e-004	0.0659	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1416	0.1416	3.7000e-004		0.1508
Unmitigated	6.1422	6.0000e-004	0.0659	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1416	0.1416	3.7000e-004		0.1508

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	0.7465					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3896					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0700e-003	6.0000e-004	0.0659	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1416	0.1416	3.7000e-004		0.1508
Total	**6.1422**	**6.0000e-004**	**0.0659**	**0.0000**		**2.3000e-004**	**2.3000e-004**		**2.3000e-004**	**2.3000e-004**		**0.1416**	**0.1416**	**3.7000e-004**		**0.1508**

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	0.7465					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3896					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0700e-003	6.0000e-004	0.0659	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1416	0.1416	3.7000e-004		0.1508
Total	**6.1422**	**6.0000e-004**	**0.0659**	**0.0000**		**2.3000e-004**	**2.3000e-004**		**2.3000e-004**	**2.3000e-004**		**0.1416**	**0.1416**	**3.7000e-004**		**0.1508**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

880 Doolittle Drive Industrial Project

Alameda County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	245.20	1000sqft	5.63	245,200.00	0
Parking Lot	401.79	1000sqft	9.22	401,790.00	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.2 **Precipitation Freq (Days)** 63

Climate Zone 4 **Operational Year** 2025

Utility Company Pacific Gas and Electric Company

CO2 Intensity (lb/MWhr) 203.98 **CH4 Intensity (lb/MWhr)** 0.033 **N2O Intensity (lb/MWhr)** 0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the DEIR's model

Land Use - Consistent with DEIR's model

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

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

Grading - Consistent with the DEIR's model

Vehicle Trips - Consistent with the DEIR's model

Construction Off-road Equipment Mitigation - Consistent with DEIR's model.

Fleet Mix - Consistent with the DEIR's model.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	300.00	295.00
tblConstructionPhase	NumDays	30.00	29.00
tblFleetMix	HHD	0.01	0.00
tblFleetMix	HHD	0.01	1.00
tblFleetMix	LDA	0.57	1.00
tblFleetMix	LDA	0.57	0.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LDT2	0.18	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	5.2110e-003	0.00
tblFleetMix	LHD2	5.2110e-003	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MCY	0.02	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MDV	0.11	0.00
tblFleetMix	MH	2.4230e-003	0.00
tblFleetMix	MH	2.4230e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	7.9000e-004	0.00
tblFleetMix	OBUS	7.9000e-004	0.00
tblFleetMix	SBUS	3.4300e-004	0.00
tblFleetMix	SBUS	3.4300e-004	0.00
tblFleetMix	UBUS	5.6000e-004	0.00

tblFleetMix	UBUS	5.6000e-004	0.00
tblGrading	MaterialExported	0.00	15,000.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	65.50
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	100.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	6.42	6.25
tblVehicleTrips	ST_TR	0.00	0.12
tblVehicleTrips	SU_TR	5.09	6.25
tblVehicleTrips	SU_TR	0.00	0.12
tblVehicleTrips	WD_TR	3.93	6.25
tblVehicleTrips	WD_TR	0.00	0.12

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	3.3991	41.1154	30.1160	0.1013	19.8049	1.4093	21.0349	10.1417	1.2993	11.2733	0.0000	10,237.5121	10,237.5121	2.0360	0.6508	10,482.3504
2025	136.5419	17.6495	22.9795	0.0644	2.9529	0.5661	3.5189	0.7995	0.5327	1.3323	0.0000	6,511.7152	6,511.7152	0.7164	0.3762	6,640.8343
Maximum	**136.5419**	**41.1154**	**30.1160**	**0.1013**	**19.8049**	**1.4093**	**21.0349**	**10.1417**	**1.2993**	**11.2733**	**0.0000**	**10,237.5121**	**10,237.5121**	**2.0360**	**0.6508**	**10,482.3504**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	3.3991	41.1154	30.1160	0.1013	19.7972	1.4093	21.0272	10.1398	1.2993	11.2714	0.0000	10,237.5121	10,237.5121	2.0360	0.6508	10,482.3504
2025	136.5419	17.6495	22.9795	0.0644	2.8057	0.5661	3.3717	0.7634	0.5327	1.2961	0.0000	6,511.7152	6,511.7152	0.7164	0.3762	6,640.8343
Maximum	**136.5419**	**41.1154**	**30.1160**	**0.1013**	**19.7972**	**1.4093**	**21.0272**	**10.1398**	**1.2993**	**11.2714**	**0.0000**	**10,237.5121**	**10,237.5121**	**2.0360**	**0.6508**	**10,482.3504**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.68	0.00	0.63	0.35	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.1422	6.0000e-004	0.0659	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1416	0.1416	3.7000e-004		0.1508
Energy	0.1897	1.7242	1.4484	0.0104		0.1310	0.1310		0.1310	0.1310		2,069.0849	2,069.0849	0.0397	0.0379	2,081.3805
Mobile	1.2389	0.6062	8.2611	1.6700e-003	0.0000	5.5800e-003	5.5800e-003	0.0000	5.1300e-003	5.1300e-003		173.4718	173.4718	0.1622	0.0832	202.3059
Total	**7.5707**	**2.3310**	**9.7754**	**0.0120**	**0.0000**	**0.1369**	**0.1369**	**0.0000**	**0.1364**	**0.1364**		**2,242.6984**	**2,242.6984**	**0.2022**	**0.1211**	**2,283.8371**

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	6.1422	6.0000e-004	0.0659	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1416	0.1416	3.7000e-004		0.1508
Energy	0.1897	1.7242	1.4484	0.0104		0.1310	0.1310		0.1310	0.1310		2,069.0849	2,069.0849	0.0397	0.0379	2,081.3805
Mobile	1.2389	0.6062	8.2611	1.6700e-003	0.0000	5.5800e-003	5.5800e-003	0.0000	5.1300e-003	5.1300e-003		173.4718	173.4718	0.1622	0.0832	202.3059
Total	**7.5707**	**2.3310**	**9.7754**	**0.0120**	**0.0000**	**0.1369**	**0.1369**	**0.0000**	**0.1364**	**0.1364**		**2,242.6984**	**2,242.6984**	**0.2022**	**0.1211**	**2,283.8371**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/1/2024	3/28/2024	5	20	
2	Site Preparation	Site Preparation	3/29/2024	4/11/2024	5	10	
3	Grading	Grading	4/12/2024	5/22/2024	5	29	
4	Building Construction	Building Construction	5/23/2024	7/9/2025	5	295	
5	Paving	Paving	7/10/2025	8/6/2025	5	20	
6	Architectural Coating	Architectural Coating	8/7/2025	9/3/2025	5	20	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 87

Acres of Paving: 9.22

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 367,800; Non-Residential Outdoor: 122,600; Striped Parking Area: 24,107 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Generator Sets	1	8.00	84	0.74
Demolition	Other Construction Equipment	1	8.00	172	0.42
Demolition	Rubber Tired Dozers	2	8.00	247	0.40

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Demolition	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	9	23.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	1,875.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	272.00	106.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	54.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.0046	28.0819	29.6196	0.0547		1.3030	1.3030		1.2165	1.2165		5,270.4686	5,270.4686	1.3648		5,304.5878
Total	**3.0046**	**28.0819**	**29.6196**	**0.0547**		**1.3030**	**1.3030**		**1.2165**	**1.2165**		**5,270.4686**	**5,270.4686**	**1.3648**		**5,304.5878**

3.2 Demolition - 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	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	0.0609	0.0404	0.4964	1.4800e-003	0.1889	9.0000e-004	0.1898	0.0501	8.3000e-004	0.0510		153.1060	153.1060	4.5000e-003	4.3500e-003	154.5138
Total	**0.0609**	**0.0404**	**0.4964**	**1.4800e-003**	**0.1889**	**9.0000e-004**	**0.1898**	**0.0501**	**8.3000e-004**	**0.0510**		**153.1060**	**153.1060**	**4.5000e-003**	**4.3500e-003**	**154.5138**

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	3.0046	28.0819	29.6196	0.0547		1.3030	1.3030		1.2165	1.2165	0.0000	5,270.4686	5,270.4686	1.3648		5,304.5878
Total	**3.0046**	**28.0819**	**29.6196**	**0.0547**		**1.3030**	**1.3030**		**1.2165**	**1.2165**	**0.0000**	**5,270.4686**	**5,270.4686**	**1.3648**		**5,304.5878**

3.2 Demolition - 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	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	0.0609	0.0404	0.4964	1.4800e-003	0.1791	9.0000e-004	0.1800	0.0477	8.3000e-004	0.0485		153.1060	153.1060	4.5000e-003	4.3500e-003	154.5138
Total	**0.0609**	**0.0404**	**0.4964**	**1.4800e-003**	**0.1791**	**9.0000e-004**	**0.1800**	**0.0477**	**8.3000e-004**	**0.0485**		**153.1060**	**153.1060**	**4.5000e-003**	**4.3500e-003**	**154.5138**

3.3 Site Preparation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6609	27.1760	18.3356	0.0381		1.2294	1.2294		1.1310	1.1310		3,688.0100	3,688.0100	1.1928		3,717.8294
Total	**2.6609**	**27.1760**	**18.3356**	**0.0381**	**19.6570**	**1.2294**	**20.8864**	**10.1025**	**1.1310**	**11.2335**		**3,688.0100**	**3,688.0100**	**1.1928**		**3,717.8294**

3.3 Site Preparation - 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	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	0.0476	0.0316	0.3885	1.1600e-003	0.1479	7.1000e-004	0.1486	0.0392	6.5000e-004	0.0399		119.8221	119.8221	3.5200e-003	3.4000e-003	120.9239
Total	**0.0476**	**0.0316**	**0.3885**	**1.1600e-003**	**0.1479**	**7.1000e-004**	**0.1486**	**0.0392**	**6.5000e-004**	**0.0399**		**119.8221**	**119.8221**	**3.5200e-003**	**3.4000e-003**	**120.9239**

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					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6609	27.1760	18.3356	0.0381		1.2294	1.2294		1.1310	1.1310	0.0000	3,688.0100	3,688.0100	1.1928		3,717.8294
Total	**2.6609**	**27.1760**	**18.3356**	**0.0381**	**19.6570**	**1.2294**	**20.8864**	**10.1025**	**1.1310**	**11.2335**	**0.0000**	**3,688.0100**	**3,688.0100**	**1.1928**		**3,717.8294**

3.3 Site Preparation - 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	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	0.0476	0.0316	0.3885	1.1600e-003	0.1402	7.1000e-004	0.1409	0.0373	6.5000e-004	0.0380		119.8221	119.8221	3.5200e-003	3.4000e-003	120.9239
Total	**0.0476**	**0.0316**	**0.3885**	**1.1600e-003**	**0.1402**	**7.1000e-004**	**0.1409**	**0.0373**	**6.5000e-004**	**0.0380**		**119.8221**	**119.8221**	**3.5200e-003**	**3.4000e-003**	**120.9239**

3.4 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2621	0.0000	9.2621	3.6626	0.0000	3.6626			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286		6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**9.2621**	**1.3354**	**10.5975**	**3.6626**	**1.2286**	**4.8912**		**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

3.4 Grading - 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	lb/day										lb/day					
Hauling	0.1280	8.7033	1.9529	0.0380	1.1326	0.0731	1.2057	0.3106	0.0700	0.3806		4,094.627 8	4,094.627 8	0.0884	0.6470	4,289.650 0
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	0.0529	0.0351	0.4317	1.2900e-003	0.1643	7.8000e-004	0.1651	0.0436	7.2000e-004	0.0443		133.1356	133.1356	3.9100e-003	3.7800e-003	134.3599
Total	**0.1809**	**8.7384**	**2.3846**	**0.0392**	**1.2969**	**0.0739**	**1.3708**	**0.3542**	**0.0707**	**0.4249**		**4,227.763 4**	**4,227.763 4**	**0.0923**	**0.6508**	**4,424.009 9**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2621	0.0000	9.2621	3.6626	0.0000	3.6626			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286	0.0000	6,009.748 7	6,009.748 7	1.9437		6,058.340 5
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**9.2621**	**1.3354**	**10.5975**	**3.6626**	**1.2286**	**4.8912**	**0.0000**	**6,009.748 7**	**6,009.748 7**	**1.9437**		**6,058.340 5**

3.4 Grading - 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	lb/day										lb/day					
Hauling	0.1280	8.7033	1.9529	0.0380	1.0813	0.0731	1.1544	0.2980	0.0700	0.3680		4,094.6278	4,094.6278	0.0884	0.6470	4,289.6500
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	0.0529	0.0351	0.4317	1.2900e-003	0.1557	7.8000e-004	0.1565	0.0415	7.2000e-004	0.0422		133.1356	133.1356	3.9100e-003	3.7800e-003	134.3599
Total	**0.1809**	**8.7384**	**2.3846**	**0.0392**	**1.2370**	**0.0739**	**1.3109**	**0.3395**	**0.0707**	**0.4102**		**4,227.7634**	**4,227.7634**	**0.0923**	**0.6508**	**4,424.0099**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

3.5 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	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	0.1020	4.7541	1.3998	0.0209	0.7184	0.0283	0.7467	0.2069	0.0271	0.2339		2,227.606 4	2,227.606 4	0.0306	0.3339	2,327.863 6
Worker	0.7196	0.4773	5.8709	0.0176	2.2344	0.0107	2.2451	0.5927	9.8200e-003	0.6025		1,810.644 5	1,810.644 5	0.0532	0.0514	1,827.294 2
Total	**0.8217**	**5.2314**	**7.2707**	**0.0384**	**2.9528**	**0.0390**	**2.9918**	**0.7995**	**0.0369**	**0.8364**		**4,038.250 9**	**4,038.250 9**	**0.0838**	**0.3853**	**4,155.157 7**

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	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.698 9	2,555.698 9	0.6044		2,570.807 7
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.698 9**	**2,555.698 9**	**0.6044**		**2,570.807 7**

3.5 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	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	0.1020	4.7541	1.3998	0.0209	0.6877	0.0283	0.7160	0.1993	0.0271	0.2264		2,227.606 4	2,227.606 4	0.0306	0.3339	2,327.863 6
Worker	0.7196	0.4773	5.8709	0.0176	2.1179	0.0107	2.1286	0.5641	9.8200e-003	0.5739		1,810.644 5	1,810.644 5	0.0532	0.0514	1,827.294 2
Total	**0.8217**	**5.2314**	**7.2707**	**0.0384**	**2.8056**	**0.0390**	**2.8446**	**0.7634**	**0.0369**	**0.8003**		**4,038.250 9**	**4,038.250 9**	**0.0838**	**0.3853**	**4,155.157 7**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.474 4**	**2,556.474 4**	**0.6010**		**2,571.498 1**

3.5 Building Construction - 2025

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	0.0997	4.7497	1.3771	0.0205	0.7184	0.0283	0.7467	0.2069	0.0271	0.2339		2,187.9365	2,187.9365	0.0306	0.3280	2,286.4577
Worker	0.6767	0.4301	5.5177	0.0170	2.2344	0.0102	2.2446	0.5927	9.4000e-003	0.6021		1,767.3043	1,767.3043	0.0484	0.0482	1,782.8786
Total	**0.7764**	**5.1798**	**6.8948**	**0.0375**	**2.9529**	**0.0385**	**2.9914**	**0.7995**	**0.0365**	**0.8360**		**3,955.2408**	**3,955.2408**	**0.0790**	**0.3762**	**4,069.3363**

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	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

3.5 Building Construction - 2025

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	0.0997	4.7497	1.3771	0.0205	0.6878	0.0283	0.7160	0.1993	0.0271	0.2264		2,187.9365	2,187.9365	0.0306	0.3280	2,286.4577
Worker	0.6767	0.4301	5.5177	0.0170	2.1179	0.0102	2.1281	0.5641	9.4000e-003	0.5735		1,767.3043	1,767.3043	0.0484	0.0482	1,782.8786
Total	**0.7764**	**5.1798**	**6.8948**	**0.0375**	**2.8057**	**0.0385**	**2.8442**	**0.7634**	**0.0365**	**0.7999**		**3,955.2408**	**3,955.2408**	**0.0790**	**0.3762**	**4,069.3363**

3.6 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	1.2078					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1230**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

3.6 Paving - 2025

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	0.0373	0.0237	0.3043	9.4000e-004	0.1232	5.6000e-004	0.1238	0.0327	5.2000e-004	0.0332		97.4616	97.4616	2.6700e-003	2.6600e-003	98.3205
Total	**0.0373**	**0.0237**	**0.3043**	**9.4000e-004**	**0.1232**	**5.6000e-004**	**0.1238**	**0.0327**	**5.2000e-004**	**0.0332**		**97.4616**	**97.4616**	**2.6700e-003**	**2.6600e-003**	**98.3205**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	1.2078					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.1230**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

3.6 Paving - 2025

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	0.0373	0.0237	0.3043	9.4000e-004	0.1168	5.6000e-004	0.1174	0.0311	5.2000e-004	0.0316		97.4616	97.4616	2.6700e-003	2.6600e-003	98.3205
Total	**0.0373**	**0.0237**	**0.3043**	**9.4000e-004**	**0.1168**	**5.6000e-004**	**0.1174**	**0.0311**	**5.2000e-004**	**0.0316**		**97.4616**	**97.4616**	**2.6700e-003**	**2.6600e-003**	**98.3205**

3.7 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	136.2367					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**136.4075**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.7 Architectural Coating - 2025

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	0.1344	0.0854	1.0954	3.3700e-003	0.4436	2.0300e-003	0.4456	0.1177	1.8700e-003	0.1195		350.8619	350.8619	9.6100e-003	9.5700e-003	353.9538
Total	**0.1344**	**0.0854**	**1.0954**	**3.3700e-003**	**0.4436**	**2.0300e-003**	**0.4456**	**0.1177**	**1.8700e-003**	**0.1195**		**350.8619**	**350.8619**	**9.6100e-003**	**9.5700e-003**	**353.9538**

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	136.2367					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**136.4075**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.7 Architectural Coating - 2025

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	0.1344	0.0854	1.0954	3.3700e-003	0.4205	2.0300e-003	0.4225	0.1120	1.8700e-003	0.1139		350.8619	350.8619	9.6100e-003	9.5700e-003	353.9538
Total	**0.1344**	**0.0854**	**1.0954**	**3.3700e-003**	**0.4205**	**2.0300e-003**	**0.4225**	**0.1120**	**1.8700e-003**	**0.1139**		**350.8619**	**350.8619**	**9.6100e-003**	**9.5700e-003**	**353.9538**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	1.2389	0.6062	8.2611	1.6700e-003	0.0000	5.5800e-003	5.5800e-003	0.0000	5.1300e-003	5.1300e-003		173.4718	173.4718	0.1622	0.0832	202.3059
Unmitigated	1.2389	0.6062	8.2611	1.6700e-003	0.0000	5.5800e-003	5.5800e-003	0.0000	5.1300e-003	5.1300e-003		173.4718	173.4718	0.1622	0.0832	202.3059

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	1,532.50	1,532.50	1532.50		
Parking Lot	0.00	0.00	0.00		
Total	1,532.50	1,532.50	1,532.50		

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
Manufacturing	0.00	0.00	65.50	100.00	0.00	0.00	100	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Parking Lot	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000

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	0.1897	1.7242	1.4484	0.0104		0.1310	0.1310		0.1310	0.1310		2,069.0849	2,069.0849	0.0397	0.0379	2,081.3805
NaturalGas Unmitigated	0.1897	1.7242	1.4484	0.0104		0.1310	0.1310		0.1310	0.1310		2,069.0849	2,069.0849	0.0397	0.0379	2,081.3805

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					
Manufacturing	17587.2	0.1897	1.7242	1.4484	0.0104		0.1310	0.1310		0.1310	0.1310		2,069.0849	2,069.0849	0.0397	0.0379	2,081.3805
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
Total		**0.1897**	**1.7242**	**1.4484**	**0.0104**		**0.1310**	**0.1310**		**0.1310**	**0.1310**		**2,069.0849**	**2,069.0849**	**0.0397**	**0.0379**	**2,081.3805**

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					
Manufacturing	17.5872	0.1897	1.7242	1.4484	0.0104		0.1310	0.1310		0.1310	0.1310		2,069.0849	2,069.0849	0.0397	0.0379	2,081.3805
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
Total		**0.1897**	**1.7242**	**1.4484**	**0.0104**		**0.1310**	**0.1310**		**0.1310**	**0.1310**		**2,069.0849**	**2,069.0849**	**0.0397**	**0.0379**	**2,081.3805**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	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	6.1422	6.0000e-004	0.0659	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1416	0.1416	3.7000e-004		0.1508
Unmitigated	6.1422	6.0000e-004	0.0659	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1416	0.1416	3.7000e-004		0.1508

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	0.7465					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3896					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0700e-003	6.0000e-004	0.0659	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1416	0.1416	3.7000e-004		0.1508
Total	**6.1422**	**6.0000e-004**	**0.0659**	**0.0000**		**2.3000e-004**	**2.3000e-004**		**2.3000e-004**	**2.3000e-004**		**0.1416**	**0.1416**	**3.7000e-004**		**0.1508**

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	0.7465					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3896					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0700e-003	6.0000e-004	0.0659	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004		0.1416	0.1416	3.7000e-004		0.1508
Total	**6.1422**	**6.0000e-004**	**0.0659**	**0.0000**		**2.3000e-004**	**2.3000e-004**		**2.3000e-004**	**2.3000e-004**		**0.1416**	**0.1416**	**3.7000e-004**		**0.1508**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

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Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
Industrial Stormwater Compliance
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) and directed efforts to improve hydrogeologic characterization and water quality monitoring. For the past 15 years, as a founding partner with SWAPE, Matt has developed extensive client relationships and has managed complex projects that include consultation as an expert witness and a regulatory specialist, and a manager of projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality and greenhouse gas emissions.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2104, 2017;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 300 environmental impact reports and negative declarations since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at more than 100 industrial facilities.
- Expert witness on numerous cases including, for example, perfluorooctanoic acid (PFOA) contamination of groundwater, MTBE litigation, air toxins at hazards at a school, CERCLA compliance in assessment and remediation, and industrial stormwater contamination.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.
- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted

public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor’s investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

<u>Policy:</u>

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9.

Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA’s national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region’s 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific

principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt is currently a part time geology instructor at Golden West College in Huntington Beach, California where he taught from 2010 to 2014 and in 2017.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F**. 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examinations, 2009-2011.

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

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Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

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

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

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

Professional Experience

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

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

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Teaching Experience:

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

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

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

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

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

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

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

Academic Grants Awarded:

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

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

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

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

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

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

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

Deposition and/or Trial Testimony:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

In the Circuit Court of the 4th Judicial Circuit, in and For Duval County, Florida
Barbara Steele vs. CSX Transportation
Case No.16-219-Ca-008796
Rosenfeld Deposition 3-15-2022

In United States District Court Easter District of New York
Romano et al. vs. Northrup Grumman Corporation
Case No. 16-cv-5760
Rosenfeld Deposition 3-10-2022

In the Circuit Court of Cook County Illinois
Linda Benjamin vs. Illinois Central
Case No. No. 2019 L 007599
Rosenfeld Deposition 1-26-2022

In the Circuit Court of Cook County Illinois
Donald Smith vs. Illinois Central
Case No. No. 2019 L 003426
Rosenfeld Deposition 1-24-2022

In the Circuit Court of Cook County Illinois
Jan Holeman vs. BNSF
Case No. 2019 L 000675
Rosenfeld Deposition 1-18-2022

In the State Court of Bibb County State of Georgia
Dwayne B. Garrett vs. Norfolk Southern
Case No. 20-SCCV-091232
Rosenfeld Deposition 11-10-2021

In the Circuit Court of Cook County Illinois
Joseph Ruepke vs. BNSF
Case No. 2019 L 007730
Rosenfeld Deposition 11-5-2021

In the United States District Court For the District of Nebraska
Steven Gillett vs. BNSF
Case No. 4:20-cv-03120
Rosenfeld Deposition 10-28-2021

In the Montana Thirteenth District Court of Yellowstone County
James Eadus vs. Soo Line Railroad and BNSF
Case No. DV 19-1056
Rosenfeld Deposition 10-21-2021

In the Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al.cvs. Cerro Flow Products, Inc.
Case No. 0i9-L-2295
Rosenfeld Deposition 5-14-2021
Trial October 8-4-2021

In the Circuit Court of Cook County Illinois
Joseph Rafferty vs. Consolidated Rail Corporation and National Railroad Passenger Corporation d/b/a AMTRAK,
Case No. 18-L-6845
Rosenfeld Deposition 6-28-2021

In the United States District Court For the Northern District of Illinois
Theresa Romcoe vs. Northeast Illinois Regional Commuter Railroad Corporation d/b/a METRA Rail
Case No. 17-cv-8517
Rosenfeld Deposition 5-25-2021

In the Superior Court of the State of Arizona In and For the Cunty of Maricopa
Mary Tryon et al. vs. The City of Pheonix v. Cox Cactus Farm, L.L.C., Utah Shelter Systems, Inc.
Case No. CV20127-094749
Rosenfeld Deposition 5-7-2021

In the United States District Court for the Eastern District of Texas Beaumont Division
Robinson, Jeremy et al vs. CNA Insurance Company et al.
Case No. 1:17-cv-000508
Rosenfeld Deposition 3-25-2021

In the Superior Court of the State of California, County of San Bernardino
Gary Garner, Personal Representative for the Estate of Melvin Garner vs. BNSF Railway Company.
Case No. 1720288
Rosenfeld Deposition 2-23-2021

In the Superior Court of the State of California, County of Los Angeles, Spring Street Courthouse
Benny M Rodriguez vs. Union Pacific Railroad, A Corporation, et al.
Case No. 18STCV01162
Rosenfeld Deposition 12-23-2020

In the Circuit Court of Jackson County, Missouri
Karen Cornwell, Plaintiff, vs. Marathon Petroleum, LP, Defendant.
Case No. 1716-CV10006
Rosenfeld Deposition 8-30-2019

In the United States District Court For The District of New Jersey
Duarte et al, Plaintiffs, vs. United States Metals Refining Company et. al. Defendant.
Case No. 2:17-cv-01624-ES-SCM
Rosenfeld Deposition 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" Defendant.
Case No. 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No. BC615636
Rosenfeld Deposition 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No. BC646857
Rosenfeld Deposition 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiffs vs. The 3M Company et al., Defendants
Case No. 1:16-cv-02531-RBJ
Rosenfeld Deposition 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No. 1923
Rosenfeld Deposition 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintifs vs. Chevron Corporation, et al., Defendants
Cause No. C12-01481
Rosenfeld Deposition 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition 8-23-2017

In United States District Court For The Southern District of Mississippi
Guy Manuel vs. The BP Exploration et al., Defendants
Case No. 1:19-cv-00315-RHW
Rosenfeld Deposition 4-22-2020

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No. LC102019 (c/w BC582154)
Rosenfeld Deposition 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., Plaintiffs, vs. Meritor Inc., et al., Defendants
Case No. 4:16-cv-52-DMB-JVM
Rosenfeld Deposition July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No. RG14711115
Rosenfeld Deposition September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No. LALA002187
Rosenfeld Deposition August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action No. 14-C-30000
Rosenfeld Deposition June 2015

In The Iowa District Court for Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No. 4980
Rosenfeld Deposition May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case No. CACE07030358 (26)
Rosenfeld Deposition December 2014

In the County Court of Dallas County Texas
Lisa Parr et al, Plaintiff, vs. Aruba et al, Defendant.
Case No. cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., Plaintiffs, vs. Republic Services, Inc., et al., Defendants
Case No. 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition October 2012

In the United States District Court for the Middle District of Alabama, Northern Division
James K. Benefield, et al., Plaintiffs, vs. International Paper Company, Defendant.
Civil Action No. 2:09-cv-232-WHA-TFM
Rosenfeld Deposition July 2010, June 2011

In the Circuit Court of Jefferson County Alabama
Jaeanette Moss Anthony, et al., Plaintiffs, vs. Drummond Company Inc., et al., Defendants
Civil Action No. CV 2008-2076
Rosenfeld Deposition September 2010

In the United States District Court, Western District Lafayette Division
Ackle et al., Plaintiffs, vs. Citgo Petroleum Corporation, et al., Defendants.
Case No. 2:07CV1052
Rosenfeld Deposition July 2009

Letter 5

COMMENTER: Gary Ho, Blum Collins & Ho LLP

DATE: August 2, 2024

Response 5.1

The commenter thanks the City for the opportunity to comment on the Draft EIR and requests to be added to the project mailing list.

This comment does not question the analysis or conclusions of the Draft EIR. Therefore, no revisions to the Draft EIR are necessary in response to this comment. At the request of the commenter, the City has updated its mailing list to include this commenter.

Response 5.2

The commenter states their understanding of the proposed project in the form of a summary.

The commenter's understanding of the proposed project is an accurate summary of the project as proposed and evaluated in the Draft EIR. This comment is noted and does not require revisions to the Draft EIR.

Response 5.3

The commenter asserts that the EIR does not accurately or adequately describe the proposed project because it does not describe other projects owned or proposed by the project applicant that are located in San Leandro. The commenter cites *State CEQA Guidelines* sections pertaining to the scope of analysis for EIRs and suggests the proposed project is the construction and operation of all buildings associated with the project applicant.

The project applicant owns multiple properties in San Leandro, including the property described by the commenter at 1919 Williams Street. However, the applicant constructs and operates its properties independent of one another. For example, the warehouse proposed at 1919 Williams Street would be constructed and operated regardless of the potential construction and operation of the proposed project at 880 Doolittle Drive. Likewise, the proposed project, if approved, would be constructed and operated regardless of activities on other properties in San Leandro that the applicant owns or operates. The construction and operation of the proposed project is a separate action unrelated to activities on other property owned by the applicant. There is no link or connection between the proposed project and other properties owned by the applicant other than the applicant retains ownership and the properties are in San Leandro. Therefore, the comment is inaccurate in asserting that the proposed project is the construction and operation of all buildings associated with the project applicant. The proposed project is the project at 880 Doolittle Drive, as described in Section 2, *Project Description*, beginning on page 2-1 of the Draft EIR.

Defining the proposed project as the project at 880 Doolittle Drive in Section 2, *Project Description*, of the EIR is consistent with the *State CEQA Guidelines*. Section 15378.a.3 of the *State CEQA Guidelines*, provides the following definition of a project: "An activity involving the issuance to a person of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies." The proposed project would require issuance of several permits and or entitlements, which are listed in Section 2.7, *Lead, Responsible, and Trustee Agencies*, and Section 2.8, *Required Approvals*, on pages 2-17 and 2.18 of the Draft EIR. The proposed project would require permits specific to it and not dependent on permits or entitlements associated with other projects or properties the applicant owns or operates in San Leandro.

Additionally, while the proposed project consists solely of the project at 880 Doolittle Drive and described in Section 2, *Project Description*, of the EIR, the cumulative impacts of the proposed project were considered in the Draft EIR. As stated on page 3-2 of the Draft EIR, the *State CEQA Guidelines* define "cumulative impacts" as two or more individual impacts that, when considered together, are substantial or will compound other environmental impacts (*State CEQA Guidelines* Sections 15065 and 15355). Cumulative impacts are the combined changes in the environment that result from the incremental impact of development of the proposed project and other nearby past, pending, and planned projects. The list of other projects considered together with the proposed project in the cumulative impacts assessment is provided in Table 3-1, on page 3-3 of the Draft EIR. As shown on Table 3-1, the project at 1919 William Street was considered in the cumulative impacts assessment. Accordingly, other proposed projects near the proposed project, including some projects owned or proposed by the project applicant were evaluated in conjunction with the proposed project in determining cumulative impacts.

As the Draft EIR accurately and adequately describes the proposed project, revisions to the Draft EIR are not necessary in response to this comment.

Response 5.4

The commenter provides a summary of their interpretation of the *State CEQA Guidelines* Section 15146 regarding the level of specificity required in EIRs. The commenter asserts that project EIRs require more specificity than program EIRs, and that EIRs must evaluate a project as a whole rather than piecemealing it into smaller separate projects.

The City concurs with the general concept that project-level EIRs should have more specificity than program EIRs because typically more details are known about specific projects than program-level actions. For example, conceptual site plans and conceptual grading plans are often available when preparing project EIRs, allowing the lead agency to see the limits of construction disturbance, length of construction activities, and utility connections. Program-level actions often do not have these types of details available at the time of preparation of the EIR. This inherently leads to project EIRs being more specific than program EIRs.

In the case of the proposed project, the City has prepared a project-level EIR evaluating the potential environmental impacts of the project as a whole. The whole or entirety of the proposed project is described in Section 2, *Project Description*, of the Draft EIR. Potential environmental impacts of the project are evaluated in Section 4, *Environmental Impact Analysis*, and Section 5, *Other CEQA Required Discussions*, of the Draft EIR. Additionally, potential environmental impacts of the project are also evaluated in the Initial Study, which is provided as Appendix A to the Draft EIR.

As the Draft EIR accurately and adequately describes and evaluates the potential environmental impacts of the proposed project as a whole, revisions to the Draft EIR are not necessary in response to this comment.

Response 5.5

The commenter asserts that the Draft EIR is inadequate because it does not provide an analysis of consistency with the General Plan as it pertains to the potentially significant and unavoidable GHG impact of the project. The commenter suggests the Draft EIR must be revised to include a consistency analysis with applicable General Plan goals and policies, including some that the commenter specifically lists.

In response to this comment, the City has evaluated project consistency with each of the policies listed in the comment. Following this consistency analysis, the City provides its determination on whether or not the Draft EIR must be revised to include the consistency analysis suggested by the commenter.

Goal LU-11. Manage the city's growth in a way that maintains the quality of life and reflects the capacity of infrastructure and public services.

The proposed project would be managed growth in that it is consistent with the existing General Plan land use designation and zoning district of the project site. As discussed on page 2-4 of the Draft EIR, the project site is designated as General Industrial (IG) in the San Leandro 2035 General Plan. According to the Land Use Element of the 2035 General Plan, areas designated as General Industrial may contain a wide range of manufacturing, transportation, food and beverage processing, technology, warehousing, and other related or similar uses. Page 2-4 of the Draft EIR also describes the existing zoning of the project site as Industrial General District.

The project site is adequately served by existing infrastructure and public services. As described on page 2-14 of the Draft EIR, the project would include new connections to existing utilities that are present in the project area. As described in Section 19, *Utilities and Service Systems*, of the Initial Study (see Draft EIR Appendix A), the capacity of existing utilities would be adequate for the proposed project. As stated on page 107 of the Initial Study, the project would not involve the extension of roads or other infrastructure that would lead to unplanned growth; the new warehouse would be constructed within City limits and connected to existing infrastructure systems and would not lead to unplanned indirect growth in the area.

Public services, such as fire and police protection already serve the project site and are available to serve the project. As discussed in Section 15, *Public Services*, of Initial Study, the project would not result in substantia increased demand on public services. Therefore, the proposed project would be consistent with Goal LU-11 of the General Plan.

Policy LU-11.1. Use of the General Plan Environmental Impact Report.

In summary, this policy directs the environmental review for any subsequent development to the General Plan to address growth impacts that would occur as a result of development exceeding the General Plan projections.

The potential growth impacts of the proposed project are evaluated in Section 14, *Population and Housing*, of the Initial Study. As described therein, the proposed project is consistent with the General Plan's IG land use designation and would not induce substantial growth beyond what was considered in the General Plan assumptions for the area. The project would be within the growth envisioned under the City's General Plan and would not result in substantial population growth. As discussed on page 107 of the Initial Study, the proposed warehouse would create jobs, which could indirectly cause population growth through employee relocations to the project area. However, the project also includes demolishing existing industrial buildings, eliminating the potential jobs provided by business that could operate within them. Additionally, the project site is located in a dense urban area and most of these employees would likely be drawn from the local population regardless of the job creation potential of existing on-site vacant buildings. For these reasons, the Initial Study determined the growth impacts of the project would be less than significant.

In addition to the Initial Study, Section 5.1, *Growth Inducement*, of the Draft EIR also evaluates the proposed project's growth inducing potential to result in physical environmental effects. The analysis provided in Section 5.1 of the Draft EIR does not rely upon the General Plan. Instead, it provides a project-specific analysis of the growth inducing potential of the project. This type of analysis is consistent with General Plan Policy LU-11.1 because it addresses the growth inducing impacts of the proposed project specifically, regardless of whether or not the growth would exceed projections in the General Plan. As described in Section 5.1, *Growth Inducement*, of the Draft EIR the proposed project's growth inducing potential would not result in significant physical environmental effects. Therefore, the proposed project would be consistent with Policy LU-11.1 of the General Plan.

Policy ED-1.3. Industrial Land Use Efficiency.

This General Plan policy encourages more efficient use of the industrial land supply in San Leandro and discourages the use of large sites and buildings for storage and other low intensity uses.

The Draft EIR, including the Initial Study that is Appendix A to the Draft EIR, evaluates potential impacts of the project consistent with Appendix G of the *State CEQA Guidelines*. Appendix G of the *State CEQA Guidelines* requires the lead agency to evaluate the potential for significant environmental impacts due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Policy ED-1.3 was not adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, analysis of consistency with this policy is not required in the Draft EIR.

For informational purposes, the proposed project has no identified tenant. Therefore, it is not possible to determine if the proposed building would be used for low-intensity uses, such as storage. However, the proposed building includes office space and sixty-four loading docks plus space for employee parking and additional truck parking, as described in Section 2, *Project Description*, of the Draft EIR. The provision of spaces for truck activity and offices suggests that the building would likely be utilized for more than storage, a low-intensity use specifically mentioned in Policy ED-1.3.

Goal EJ-1. Reduce Pollution Exposure and Improve Air Quality.

Goal EJ-1 of the General Plan does not specify what constitutes pollution. However, based on policies and actions listed under Goal EJ-1 in General Plan, pollution could include air pollution, exposure to hazardous contamination and materials, and noise pollution.

The potential air quality impacts of the proposed project are evaluated in Section 3, *Air Quality*, of the Initial Study, which begins on page 31 of the Initial Study. The Initial Study is included as Appendix A to the Draft EIR. As described on page 31 of the Initial Study, Kimley Horn and Associates prepared an Air Quality Assessment for the proposed project in November 2023. Kimley Horn and Associates also prepared a Health Risk Assessment for the project in November 2023. Both documents were peer reviewed by Rincon Consultants, Inc. on behalf of the City. Both documents are included as appendices to the Initial Study and were used to inform Section 3, *Air Quality*, of the Initial Study.

As discussed on pages 40 and 41, the proposed project would be consistent with the criteria of the 2017 Clean Air Plan, which is the most current clean air plan adopted by the Bay Area Air Quality Management District. The proposed project would not obstruct implementation of the 2017 Clean Air Plan, and the Initial Study determined impacts would be less than significant.

As shown in Table 7 on page 42 of the Initial Study, the estimated operational emissions of the project would not exceed BAAQMD thresholds for criteria pollutants. As shown in Table 6 on page 41 of the Initial Study, project-construction related emissions would not exceed BAAQMD thresholds. Therefore, project construction would not result in a cumulatively considerable net increase of a criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard. Additionally, the applicant would be required to implement Mitigation Measure AQ-1 on pages 42 and 43 of the Initial Study. Mitigation Measure AQ-1 requires the project applicant to implement basic construction mitigation measures recommended by BAAQMD to reduce fugitive dust emissions. The Initial Study determined that impacts related to a cumulatively considerable net increase of a criteria pollutant for which the project region is non-attainment would be less than significant with implementation of mitigation.

Construction and operation of the project would generate toxic air contaminants, such as the exhaust from diesel construction equipment and diesel tractor trailers. The potential health risks of exposure to these contaminants at the nearest sensitive receptor to the project are evaluated in detail in the Health Risk Assessment that Kimley Horn and Associates prepared for the project in November 2023. The results of the Health Risk Assessment are discussed on pages 43 through 47 of the Initial Study. As described therein, the project's health risk would not exceed applicable thresholds. The proposed project would not expose sensitive receptors to substantial pollutant concentrations and impacts would be less than significant (see Initial Study page 47).

As discussed in Section 9, *Hazards and Hazardous Materials*, beginning on page 79 of the Initial Study, the proposed project would result in less than significant impacts related hazards to the public or the environment through the routine transport, use, or disposal of hazardous materials. The proposed would also have less than significant impacts related to the potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.

The potential for the project to result in impacts related to a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment is evaluated in the Draft EIR. As described on page 4.2-2 of the Draft EIR, the project site is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, otherwise known as the "Cortese List." The project site is considered a hazardous site due to subsurface contamination with chlorinated volatile organic compounds associated with the Kaiser Aerotech operation that formerly operated on-site.

As described on page 4.2-13 of the Draft EIR, construction of the project would have the potential to mobilize or release existing hazardous contamination. Additionally, as described on page 4.2-14 of the Draft EIR, operation of the project would have the potential to expose building occupants to hazardous materials, as well as result in further groundwater contamination through improper stormwater management treatment. The release of existing on-site contamination is identified as a potentially significant impact on pages 4.2-

13 and 4.2-14 of the Draft EIR. However, as discussed on pages 4.2-14 through 4.2-18 of the Draft EIR, mitigation measures HAZ-1 through HAZ-6 must be implemented. With implementation of these measures, impacts related to release of hazardous contamination would be less than significant, as discussed on pages 4.2-18 and 4.2-19 of the Draft EIR.

The potential noise impacts of the project are evaluated and discussed in Section 4.3, *Noise and Vibration*, of the Draft EIR. As summarized on page 4.3-11 of the Draft EIR, construction and operation of the proposed project would generate noise, increasing ambient noise levels near the project site. However, construction noise would be temporary and below thresholds of significance. Traffic noise during operation would also be below significance thresholds; however, on-site operational noise would exceed thresholds established for the nearest sensitive receptor. Impacts would be potentially significant but mitigatable. Required mitigation measure NOI-1, described on page 4.3-18 of the Draft EIR, consists of a permanent noise barrier along the property boundary that is oriented in a northwest-southeast direction. As summarized on page 4.3-18 of the Draft EIR, with a sound barrier in this location, on-site noise levels at the nearest sensitive receptor would be reduced to 50 dBA. Noise levels of 50 dBA would be below the significance threshold of 55 dBA. Accordingly, with implementation of Mitigation Measure NOI-1, project noise impacts would be less than significant.

As the project would not expose people or the environment to potentially significant impacts associated with air pollution, exposure to hazardous contamination and materials, or noise pollution, the proposed project would be consistent with Goal EJ-1 of the General Plan.

Policy EH-3.3. Land Use Compatibility.

This General Plan policy discourages new land uses with potential adverse air quality impacts, including the emission of toxic air contaminants and fine particulates, near residential neighborhoods, schools, hospitals, nursing homes, and other locations where public health could potentially be affected.

As discussed in detail above in the analysis of consistency with General Plan Goal EJ-1, The proposed project would not obstruct implementation of the BAAQMD 2017 Clean Air Plan. Operational emissions of criteria air pollutants would not exceed BAAQMD thresholds for criteria pollutants. The project applicant must implement Mitigation Measure AQ-1 requiring dust control measures during construction. With implementation of this mitigation measure, project-construction related emissions would not exceed BAAQMD thresholds.

Also discussed above in the analysis of consistency with General Plan Goal EJ-1, Kimley Horn and Associates also prepared a Health Risk Assessment for the project in November 2023, which is included as Appendix B to the Initial Study. The Health Risk Assessment evaluated the potential for toxic air contaminants to impact health at the nearest sensitive receptor to the project site, which it identifies as single-family residences approximately 500 feet from the project site. There are no schools, hospitals, nursing homes, and other similar locations within closer distance to the site than the single-family residences identified in the Health Risk Assessment. For example, the nearest school to the project site is approximately 2,800 feet away from the site. As discussed in the Health Risk Assessment and summarized on pages on pages 43 through 47 of the Initial Study, the project's health risk would not exceed applicable thresholds. The proposed project would not expose sensitive receptors to substantial pollutant concentrations and impacts would be less than significant (see Initial

Study page 47). Accordingly, the proposed project would not conflict with General Plan Policy EH-3.3.

Policy EH-3.4. Design, Construction, and Operation.

This General Plan policy requires new development to reduce the potential for future air quality problems through design features such as: minimizing construction dust; ensuring best available technology is used for operations that could generate emissions; encouraging energy conservation; promoting landscaping and tree planting; and reducing GHG emissions consistent with City's Climate Action Plan.

As discussed in detail above in the analysis of consistency with General Plan Goal EJ-1, the project applicant must implement mitigation measure AQ-1 requiring BAAQMD dust control measures during construction. With implementation of this mitigation measure, project-construction related emissions would not exceed BAAQMD thresholds. Operational emissions of criteria air pollutants would not exceed BAAQMD thresholds for criteria pollutants. The potential energy impacts of the project are evaluated in Section 6, *Energy*, of the Initial Study, which begins on page 59 of the Initial Study. As described on page 63 of the Initial Study, project operation would not result in potentially significant environmental effects due to the wasteful, inefficient, or unnecessary consumption of energy, and impacts would be less than significant. As described on page 2-13 of the Draft EIR, the proposed project would involve landscaping and tree planting.

Project consistency with the City's Climate Action Plan is evaluated in Table 4.1-3 of the Draft EIR, which begins on page 4.1-11. As shown in Table 4.1-3, the proposed project would generally be consistent with the Climate Action Plan because it would be consistent with most of the applicable measures identified in the Climate Action Plan. As on

As discussed on page 4.1-12 of the Draft EIR, the proposed project would be inconsistent with Measure WR-1 pertaining to waste reuse and measures BE-1 and BE-2 of the Climate Action Plan, which pertain to replacing natural gas with electricity. Inconsistency with Measure WR-1 would not result in physical environmental impacts because the policy encourages maker spaces, and tool-lending libraries for example. The absence of these features from the project would not result in physical environmental effects. The proposed project would be inconsistent with measures BE-1 and BE-2 because the proposed project would include new natural gas connections. The City is unable to implement feasible or enforceable mitigation to eliminate natural gas from the proposed project (see page 4.1-9 of the Draft EIR and Response 4.4 for a full explanation). Accordingly, the proposed project would be potentially inconsistent with General Plan Policy EH-3.4 because the proposed project would not implement all applicable strategies of the Climate Action Plan intended to reduce GHG emissions.

Policy EH-9.6. Airport Safety Zones.

This General Plan Policy encourages the City to regulate land uses within designated airport safety zones, height referral areas, and noise compatibility zones to minimize the possibility of future noise conflicts and accident hazards.

The City does regulate land uses within designated airport safety zones. The regulation of uses within airport safety zones is accomplished several ways. Examples include the City's General Plan and Zoning Ordinance, both of which restrict certain land uses, such as residential uses, within applicable airport safety zones. Regarding the proposed project, as described on page 84 of the Initial Study, the project site is located primarily in the Outer Approach Zone (Zone 4) of the Oakland International Airport, where warehouses and distribution facilities are a compatible use assuming employment does not exceed 100 employees per acre. Additionally, the project applicant submitted the project to the FAA, who determined that a proposed building height of 50 feet does not present a hazard to air navigation. Therefore, the project would not result in a safety hazard or excessive noise for people working in the project area as a result of airport operations. Impacts would be less than significant. Therefore, the proposed project would be consistent with General Plan Policy EH-9.6.

Additionally, this General Plan action is not applicable to the proposed project because it pertains to an action taken by the City that would apply city-wide, rather than for a specific project.

Policy T-1.5. Land Use Strategies.

This General Plan policy promotes land use concepts that reduce the necessity of driving, encourage public transit use, and reduce trip lengths. These concepts include live-work development, mixed use development, higher densities along public transit corridors, and the provision of commercial services close to residential areas and employment centers

This policy does not apply to the proposed project because it encourages land uses that are not compatible with the project or existing zoning of the project site, such as residential uses. Additionally, this General Plan policy is not applicable to proposed project because it pertains to an action taken by the City that would apply city-wide rather than a specific project.

Action T-5.2.A: New Evaluation Methodologies Consistent with SB 743.

This General Plan action encourages the City to implement new methodologies for evaluating and mitigating transportation impacts which are based on VMT rather than level of service (LOS).

The potential transportation impacts of the project were evaluated using VMT rather LOS. As discussed on pages 4.4-6 and 4.4-7 of the Draft EIR, the VMT impacts of the project would be less than significant. The proposed project would be consistent with General Plan Action T-5.2.A. Additionally, this General Plan action is not applicable to proposed project because it pertains to an action taken by the City that would apply city-wide rather than a specific project. Nonetheless, the City has adopted a VMT policy, consistent with General Plan Action T-5.2A.

As discussed in the consistency analysis above, the proposed project would be consistent with all but one of the General Plan goals and policies listed by the commenter. The proposed project would be potentially inconsistent with General Plan Policy EH-3.4 because the project would include natural gas, which is inconsistent with one or more measures of the Climate Action Plan. However, this does not constitute new information because the Draft EIR already identifies and discusses this inconsistency. Specifically, on pages 4.1-12 and 4.1-13 of the Draft EIR, the proposed project is described as conflicting with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. Impacts are identified as significant and unavoidable. However, to provide additional clarification, page 4.1-12 of the Draft EIR is revised as follows:

> The proposed project would be inconsistent with ~~policies~~ <u>measures</u> BE-1 and BE-2 because the proposed project would include new natural gas connections. Accordingly, the proposed project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions<u>, such as General Plan Policy EH-3.4 and the City's Climate Action Plan</u>. Impacts would be potentially significant, and mitigation is required.

No further revisions to the Draft EIR are required in response to this comment.

Response 5.6

The commenter opines that the Draft EIR does not contain details about required approvals for a height exception, and a revised EIR should be prepared to include this information pursuant to *State CEQA Guidelines* Section 15121.

The Draft EIR does describe both the height of the proposed building and the approvals required for the height. As described on pages 2-8 and 2-9 of the Draft EIR, the maximum building height would be 50 feet with an interior clear height of 40 feet. As discussed on page 2-17 of the Draft EIR, the project site is approximately 4,050 feet away from the nearest runways at Oakland International Airport. Due to this proximity a No Hazard Determination for the warehouse was issued from the Federal Aviation Administration pursuant to Federal Aviation Regulations Part 77, because the proposed warehouse would have a maximum height of 50 feet, exceeding the 43 feet maximum permitted at this distance from the airport runway. The applicant submitted the project to the FAA, who determined that a building height of 50 feet does not present a hazard to air navigation. An additional No Hazard Determination may also be needed for the use of project construction equipment exceeding 43 feet in height. Page 2-18 of the Draft EIR provides list of approvals and permits that are required for the project, including a height exception. The effects of the height exception are analyzed as part of the proposed project throughout the Draft EIR and Initial Study because impacts and analyzed for a building with a 50-foot maximum height. Including the application for the proposed height exception within the Draft EIR is unnecessary to adequately analyze and disclose the potential environmental effects of the project. Although a specific permit is not required for the crane that would be used for project construction, its height was also included in the analysis of potential environmental impacts. Section 15121 of the *State CEQA Guidelines* does not require the inclusion of detailed contents of permit applications in an EIR. Therefore, no revisions to the Draft EIR are required in response to this comment.

Response 5.7

The commenter asserts that the Initial Study does not quantify the project workforce size, provides an estimation of the workforce size based on a rate from the federal government, and suggests the project workforce, by itself and when combined with other projects, would exceed employment growth forecasts in the City's General Plan. The commenter suggests that a revised EIR should be prepared to determine if growth forecasts would be exceeded.

The Draft EIR, including the Initial Study that is Appendix A to the Draft EIR, evaluates potential impacts of the project consistent with Appendix G of the *State CEQA Guidelines*. Appendix G of the *State CEQA Guidelines* identifies 21 environmental topics for evaluation in CEQA documents and provides a series of impact checklist questions to consider for each topic. Appendix G of the *State CEQA Guidelines* contains a checklist question asking if the project would induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). This checklist question is addressed in Section 14, *Population and Housing*, of the Initial Study, which is provided as Appendix A to the Draft EIR. Specifically, the potential for employment opportunities resulting from the proposed project to induce substantial population growth are evaluated on pages 107 and 108 of the Initial Study. As discussed therein, the project would involve the construction of a new warehouse which would create an estimated 152 jobs (see page 2-9 of the Draft EIR). Job creation could indirectly cause population growth through employee relocations to the project area. However, the project also includes demolishing existing industrial buildings, eliminating the potential jobs provided by business that could operate within them. Additionally, the project site is in a dense urban area and many of these employees would likely be drawn from the local population regardless of the job creation potential of existing on-site vacant buildings. Some employees may relocate to the area as a result of job opportunities resulting from the proposed project; however, a substantial change in employment growth in the area would not occur, relative to the General Plan. The proposed project is consistent with the General Plan's IG land use designation and would not induce substantial growth beyond what was considered in the General Plan assumptions for the area. The project would be within the growth envisioned under the City's General Plan and would not result in substantial population growth. Impacts would be less than significant.

The growth inducement potential of the project is also discussed in Section 5, *Other CEQA Required Discussions*, of the Draft EIR. Specifically, Section 5.1, *Growth Inducement*, of the Draft EIR evaluates the growth inducing potential of the project to result in physical environmental effects. As described on page 5-1 of the Draft EIR the growth inducing potential of proposed project's would not result in significant physical environmental effects.

An analysis of the potential growth inducing impacts of the project is provided in both the Initial Study and Draft EIR, as described in the response to this comment. Therefore, it is unnecessary to prepare a revised EIR to determine if growth forecasts would be exceeded. Additionally, the commenter does not specify physical environmental effects that should be analyzed in context with employment growth. As further discussed under *State CEQA Guidelines* Section 15126.2(e), "[I]t must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment." The purpose behind looking at growth is to determine whether "increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects." The commenter makes no assertion that growth resulting from the project would result in construction of new facilities that could cause significant environmental effects. Accordingly, no revisions to the Draft EIR are required in response to this comment.

Response 5.8

The commenter opines that a revised EIR should be prepared to provide demographic and geographic information on the location of the project workforce in order to inform an accurate environmental analysis.

As described on page 2-8 of the Draft EIR, there is no specific known land use and/or tenant proposed at this time. Therefore, there is no proposed workforce and no known way to determine the demographic makeup. Regardless, the Draft EIR has been prepared to evaluate and disclose the potential physical environmental impacts of the project and provide mitigation measure to avoid or reduce the potentially significant impacts to the extent feasible (see *State CEQA Guidelines* Section 15002). The demographics of the workforce are irrelevant to the physical environmental impacts of the project. For example, it is irrelevant the percentage of the workforce that is male or female, as these demographic details have no bearing on environmental impacts. Accordingly, the Draft EIR need not be revised to disclose the demographics of the workforce.

As described in the previous paragraph, there is no tenant or identified workforce at this time. Therefore, the specific location of this workforce is also not known. For example, it is impossible to know the specific street address of every person who may eventually be employed at the project site should the project be approved. However, this level of detail is unnecessary to evaluate the potential environmental effects of the project. The Draft EIR makes supported assumptions on the location of the workforce in enough detail to provide an adequate evaluation of potential environmental effects. As described on page 5-1 of the Draft EIR, the proposed project would not generate substantial population growth. Most employment opportunities resulting from the project would be filled by people already in the San Francisco Bay Area.

The basis for the assumption that the workforce would be primarily from the San Francisco Bay Area is described on page 5-1 of the Draft EIR. As described therein, the project also includes demolishing existing industrial buildings, eliminating the potential local jobs provided by businesses that could operate within them. Additionally, the project site is located in a dense urban area and many of the warehouse employees would likely be drawn from the local population regardless of the job creation potential of existing on-site vacant buildings. Some employees may relocate to the area as a result of job opportunities resulting from operation of the proposed project; however, a substantial change in population growth in the area would not occur.

Finally, the commenter does not specify additional environmental effects or mitigation measures that could be made more accurate or be informed by specific demographic and location data for the project workforce. Therefore, it is unclear what the inclusion of this data, even if it were known and available, would be applied to the Draft EIR or a revised EIR. Accordingly, no revisions to the Draft EIR are required in response to this comment.

Response 5.9

The commenter asserts that the Draft EIR contains no floor plan, detailed site plan, building elevations, or complete conceptual grading plan, all of which they opine are needed for an adequate impact analysis in the Draft EIR.

The Draft EIR does provide a detailed site plan, building elevations, and a conceptual grading plan. A conceptual site plan is provided as Figure 2-4, *Conceptual Site Plan*, on page 2-10 of the Draft EIR. Figure 2-4 contains typical conceptual site plan details, including the building footprint and approximate size, surface parking and internal circulation roads, driveways, and bioretention and stormwater treatment areas. Conceptual building elevations are provided as Figure 2-5, *Conceptual Building Elevations*, on page 2-11 of the Draft EIR. Figure 2-6, *Conceptual Rendering of Project*, on page 2-12 of the Draft EIR also provides elevation views of the proposed building. Figure 2-5 provides details on the materials that would be used for the building exterior, such as the facade. Figure 2-6 is provided a full-color figure showing the potential color palette that would be used for the exterior of the building.

Conceptual grading is shown on Figure 2-4, *Conceptual Site Plan*, on page 2-10 of the Draft EIR. A conceptual grading plan is also included as Figure 6, *Conceptual Grading Plan*, on page 11 of the Initial Study, which is included as Appendix A to the Draft EIR. Proposed grading is also described on page 2-14 of the Draft EIR. As described therein, the project site is relatively level, which would minimize the amount of grading included in the proposed project. Generally, grading would be designed to slope in a west-southwest direction across the site, which would allow stormwater runoff to flow into bioswale areas and then into the City's storm drain system. Elevations on the project site following grading would vary between approximately 10 feet and 17 feet above mean sea level. Preliminary grading design shows a balanced site. Nonetheless, the Air Quality Assessment prepared for the project (see Appendix A to the Initial Study) evaluated the potential air quality impacts of the project assuming that up to 15,000 cubic yards of material would be imported to the site during project construction. As described in Section 3, *Air Quality*, of the Initial Study, the proposed project would not result in significant environmental impacts related to air quality.

A detailed floor plan of the building is not provided in the Draft EIR because the proposed project would be a warehouse with approximately 15,000 square feet of associated office space, as described on page 2-8 of the Draft EIR. These features of the project are shown on Figure 2-4, *Conceptual Site Plan*. The location of rooms or spaces internal to the building are not necessary to analyze the potential environmental effects of the project. Therefore, it is unnecessary to provide a detailed floor plan beyond that which is shown on Figure 2-4, *Conceptual Site Plan*, of the Draft EIR. The commenter does not provide information or analysis to indicate that the Draft EIR is missing information based on additional project details.

Because the Draft EIR does provide detailed site plan, building elevations, and a conceptual grading plan, no revisions to the Draft EIR are required in response to this comment.

Response 5.10

The commenter asserts that Figure 2-4 in the Draft EIR has been edited for public review to remove meaningful information such as the floor area ratio, site coverage, and key notes, and that this information is needed to conduct an adequate analysis.

As discussed in Response 5.9, a conceptual site plan is provided as Figure 2-4, *Conceptual Site Plan*, on page 2-10 of the Draft EIR. Figure 2-4 contains typical conceptual site plan details, including the building footprint and approximate size, surface parking and internal circulation roads, driveways, and bioretention and stormwater treatment areas. Figure 2-4 contains numerous notes and labels, such as final grading elevations, dimensions of internal circulation roads, and the approximate size of the proposed building. Figure 2-4 does not contain the specific notes described by the commenter, such as floor area ratio and site coverage. However, the proposed floor area ratio is described as 0.40 on page 2-8 of the Draft EIR.

The commenter does not specify how or why site coverage is necessary for adequate analyses of environmental impacts. Therefore, it is unnecessary to revise the Draft EIR, including Figure 2-4, to include a note describing the site coverage of the building. The Draft EIR evaluates potential environmental effects of the project on existing conditions. In the case of site coverage, the proposed project would reduce impervious site coverage compared to existing conditions, as described on page 91 of the Initial Study. The reduction of impervious site coverage compared to existing conditions is sufficient for evaluating the potential environmental impacts of the project.

The commenter does not provide information or analysis to indicate that the Draft EIR is missing information based on additional project details. As the Draft EIR provides a conceptual site plan with typical detail and describes the characteristics of the project in sufficient detail to adequately evaluate its impacts on the environment, no revisions to Figure 2-4 or the Draft EIR are required in response to this comment.

Response 5.11

The commenter asserts that Figure 2-5 in the Draft EIR is blurry and illegible, resulting in no meaningful information such as the height of the buildings, colors, or materials being made available.

The City is unaware of why this commenter asserts that Figure 2-5, Conceptual Building Elevations, on page 2-11 of the Draft EIR appears blurry or illegible. Figure 2-5 is legible when the City views the figure in both print and electronic (computer monitor) formats. Regardless, the details that commenter states they cannot see or read on Figure 2-5 are provided as text elsewhere in the Draft EIR, making Figure 2-5 unnecessary or optional. As described on pages 2-8 and 2-9 of the Draft EIR, the maximum building height would be 50 feet with an interior clear height of 40 feet. Page 2-9 of the Draft EIR also describes the materials that would be used for building exterior. As described therein, the exterior of the proposed warehouse would be constructed of a mix of materials, including concrete panels, corrugated and noncorrugated metal panels, wood finish/trim, and glazing. Glazing would be a mix of insulated glass installed over concrete and other materials, and glass installed over openings to serve as traditional windows. Figure 2-6, *Conceptual Rendering of Project*, on page 2-12 of the Draft EIR also provides elevation views of the proposed building. Figure 2-6 is provided a full-color figure showing the potential color palette that would be used for the exterior of the building. Therefore, the Draft EIR includes the details the commenter requests, including building height, materials, and color palette. No revisions to the Draft EIR are required in response to this comment.

Response 5.12

The commenter asserts that the Draft EIR does not include a detailed grading plan, and that Figure 2-8 in the Draft EIR does not provide details typical of a grading plan, such as earthwork quantity notes and proposed contours. The commenter opines that without these details, statements in the Draft EIR pertaining to the site being relatively level and requiring minimal grading cannot be verified. The commenter asserts these details are needed to evaluate haul trips during project construction.

This comment is similar to Comment 5.9. Please see Response 5.9. Briefly, as described therein, conceptual grading contours are shown on Figure 2-4, *Conceptual Site Plan*, on page 2-10 of the Draft EIR. Figure 2-4 also shows the existing topography of the project site. A conceptual grading plan is also included as Figure 6, *Conceptual Grading Plan*, on page 11 of the Initial Study, which is included as Appendix A to the Draft EIR. Proposed grading is also described on page 2-14 of the Draft EIR. As described therein, the project site is relatively level, which would minimize the amount of grading included in the proposed project. Preliminary grading design shows a balanced site, with no import/export of material. Additionally, the relatively level conditions at the project site are documented in site photographs, which are provided as Figure 2-3, *Existing Site Conditions: Representative Photographs*, on pages 2-5 through 2-7 of the Draft EIR.

Because the Draft EIR, including the Initial Study, does provide conceptual grading plans and show grading contours, describe grading, and include both existing topography and site photographs that document the relatively level conditions at the project site, no revisions to the Draft EIR are required in response to this comment. The commenter does not provide information or analysis to indicate that the Draft EIR is missing information based on proposed grading details. Additionally, the Air Quality Assessment prepared for the project (see Appendix A to the Initial Study) evaluated the potential air quality impacts of the project assuming up to 15,000 cubic yards of material would be imported to the site during project grading. As described in Section 3, *Air Quality*, of the Initial Study, the proposed project would not result in significant environmental impacts related to air quality.

Response 5.13

The commenter asserts that a revised EIR must be prepared to include a complete and unedited floor plan, detailed site plan, building elevations, conceptual grading plan, and project narrative.

This comment is similar to Comment 5.9. Please see Response 5.9. As described therein, the plans and narrative the commenter describes are included in the Draft EIR with enough detail to adequately evaluate the potential environmental impacts of the project. The commenter does not provide information or analysis to indicate that the Draft EIR is missing information based on additional project details. No revisions to the Draft EIR are required in response to this comment.

Response 5.14

The commenter opines that the Draft EIR does not contain details about required approvals for a height exception, and a revised EIR should be prepared to include this information pursuant to *State CEQA Guidelines* Section 15121.

This comment is nearly identical to Comment 5.6. Please see Response 5.6. As described therein, briefly, the Draft EIR does describe the required approvals and permits for the project, including height exceptions. No revisions to the Draft EIR are required in response to this comment.

Response 5.15

The commenter states they have provided an attachment to their comment letter providing a full technical commentary and analysis from a consultant.

Responses to this attachment are provided later in the continued response to letter 5.

Response 5.16

The commenter asserts that the Draft EIR does not include the analysis of project impacts relevant to environmental justice issues.

There are currently no formal requirements or procedures to evaluate potential environmental justice impacts under CEQA. While the physical environmental impacts of discretionary projects must be examined under CEQA, "the economic and social effects of proposed projects are outside CEQA's purview." (Guidelines, section 15131(a); *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1205). Therefore, formal analysis of economic or social impacts is not required, which includes impacts related to an individual or group of individuals' demographics or economic status through the context of environmental justice. Accordingly, no revisions to the Draft EIR are required in response to this comment.

Outside the context of CEQA, the City does consider if projects would be generally consistent with its General Plan, which does include an Environmental Justice Element. Environmental justice pertains to disproportionate adverse environmental impacts on certain populations or groups of people, including areas the City has identified as a Disadvantaged Community in its General Plan. As described in Response 5.18, the project site is identified as part of a Disadvantaged Community in the City's General Plan (see Figure 12-1 on page 12-4 of the General Plan). The environmental impacts of the proposed project with the potential to impact people comprising this Disadvantaged

Community include those related to air quality, hazardous materials, and noise, because these impacts can travel or move off-site and impact nearby receptors, such as residents. There are no members of the Disadvantage Community on the project site because the site is vacant.

As described in detail in Response 5.17, the potential adverse health impacts of project air pollutant emissions were evaluated at the nearest sensitive receptor to the project site, which is also part of the Disadvantaged Community, and the project's health risk would not exceed applicable thresholds. As described in more detail in Response 5.23, the Draft EIR includes the incorporation of Mitigation Measure HAZ-2 and Mitigation Measure HAZ-3. These measures would reduce release of existing soil and groundwater contamination into the project area, including the Disadvantaged Community, during project construction. Additionally, the applicant would be required to implement Mitigation Measure AQ-1 on pages 42 and 43 of the Initial Study. Mitigation Measure AQ-1 requires the project applicant to implement basic construction mitigation measures recommended by BAAQMD to reduce fugitive dust emissions, thereby preventing contaminated soil from becoming airborne dust and reaching the nearest sensitive receptor to the project site.

The potential noise impacts of the project are evaluated in Section 4.3, *Noise and Vibration*, of the Draft EIR, which begins on page 4.3-1. As shown in Table 4.3-2 on page 4.3-12 of the Draft EIR, project construction equipment would generate noise levels of up to 64 dBA Leq at the nearest sensitive receptor, which is a residence within the Disadvantaged Community. The modeled noise level of 64 dBA Leq is below the significance threshold of 80 dBA Leq. Project operational noise of the project was also evaluated at the nearest sensitive receptor to the project site. As described on page 4.3-13 of the Draft EIR, most operational noise would be below significance thresholds at the receptor, but when trucks operate along the northern side of the proposed building, significance thresholds could be exceeded. Incorporation of Mitigation Measure NOI-1, described on page 4.3-18 of the Draft EIR, requires installation of permanent noise barrier along the property boundary that is oriented in a northwest-southeast direction. This noise barrier would reduce project operational noise at the nearest sensitive receptor to below significance thresholds. Therefore, noise impacts at the nearest sensitive receptor would be less than significant with implementation of mitigation (see page 4.3-18 of the Draft EIR).

Because the Draft EIR evaluates the potential air quality and health risk, hazard material exposure, and noise impacts of the project at the nearest sensitive receptor, and that receptor is part of a Disadvantaged Community, the EIR analysis has evaluated impacts on an environmental justice community. As described earlier in this response, these impacts would be less than significant either with or without mitigation, depending on the specific impact. The proposed project would not have disproportionate or significant impacts on a Disadvantaged Community.

The City has also evaluated the consistency of the project with its General Plan, outside the context of CEQA. The following table provides a brief summary of the project consistency analysis with the applicable policies of the Environmental Justice Element (Chapter 12):

General Plan Policy – Environmental Justice Element	Consistency Analysis
Policy EH-3.3: Land Use Compatibility. Discourage new uses with potential adverse air quality impacts, including the emission of toxic air contaminants and fine particulates, near residential neighborhoods, schools, hospitals, nursing homes, and other locations where public health could potentially be affected	**Consistent.** Please see Response 5.5, above, for the analysis of consistency with this policy.

General Plan Policy – Environmental Justice Element	Consistency Analysis
Policy EH-5.1: Regulatory Compliance. Work with the appropriate county, regional, state, and federal agencies to develop and implement programs for hazardous waste reduction, hazardous material facility siting, hazardous waste handling and disposal, public education, and regulatory compliance.	**Consistent.** The applicant has not proposed a hazardous material facility at the project site. The project applicant must comply with regulations pertaining to the handling and disposal of hazardous materials, which are described in Section 4.2.2, *Regulatory Setting*, beginning on page 4.2-6 of the Draft EIR. As described on page 4.2-12 through 4.2-13 of the Draft EIR, project construction activities would have potential to release or mobilize existing contamination on the project site. However, the Draft EIR includes mitigation to reduce the risk of this hazardous contamination from reaching the nearest sensitive receptors to the project site (see Response 5.23).
Policy EH-5.2: Clean-Up of Contaminated Sites. Ensure that the necessary steps are taken to clean up residual hazardous wastes on any contaminated sites proposed for redevelopment or reuse. Require soil evaluations as needed to ensure that risks are assessed and appropriate remediation is provided.	**Consistent.** Pages 4.2-15 through 4.2-17 of the Draft EIR describe Mitigation Measure HAZ-2. Mitigation Measure HAZ-2 requires the project applicant to continue to utilize Department of Toxic Substances Control for agency oversight of assessment and remediation of the project site through completion of construction activities. HAZ-2 requires implementation of the Revised Soil and Groundwater Management Plan during construction. The Revised Soil and Groundwater Management Plan is approved by the Department of Toxic Substances Control and contains measures and practices that must be implemented to ensure hazardous materials are not released into the environment. Mitigation Measure HAZ-2 also requires field screening of site soil continuously during ground disturbing activities using a calibrated handheld photoionization detector or other organic vapor meter. Soils identified as contaminated must be removed, transported, and disposed of in accordance with federal and state regulations.
Policy EH-10: Downwind Impacts. Consider the direction of prevailing winds in the siting of facilities likely to generate smoke, dust, and odors. Ensure that such facilities are sited to minimize the impacts on downwind residential areas and other sensitive uses.	**Consistent.** The proposed project would does not include stacks, furnaces, incinerators, or other equipment that would generate substantial amounts of smoke. As described on page 47 of the Initial Study (Appendix A of the Draft EIR), operation of the project would not generate odors affecting a substantial number of people. Additionally, the applicant would be required to implement Mitigation Measure AQ-1 on pages 42 and 43 of the Initial Study. Mitigation Measure AQ-1 requires the project applicant to implement basic construction mitigation measures recommended by BAAQMD to reduce fugitive dust emissions, thereby preventing contaminated soil from becoming airborne dust and reaching the nearest sensitive receptor to the site.
Policy T-6.7. Siting of Businesses with Truck Traffic. To the extent feasible, locate businesses projected to generate large amounts of truck traffic away from residential areas. Ingress and egress for such businesses should be designed to minimize the possibility of truck traffic impacting residential streets.	**Consistent.** Consistency with this policy is evaluated in Table 20 on pages 121 and 122 of the Initial Study. The Initial Study is provided as Appendix A to the Draft EIR.
Policy EJ-1.4: Cleanup Sites. Continue to work closely with jurisdictionally approved cleanup oversight agencies and collaborate on past, current, and emerging cleanup cases.	**Consistent.** Please see consistency analysis for Policy EH-5.2, earlier in this table.

General Plan Policy – Environmental Justice Element	Consistency Analysis
Policy EJ-1.9: Alternative Fuel Vehicles. Promote the development of infrastructure that supports the use of alternative fuel (i.e., electric) vehicles in Environmental Justice Communities by requiring electric vehicle infrastructure be incorporated into new residential development. (See Environmental Hazards Element Policy EH-3.9 for additional guidance on alternative fuel vehicles).	**Consistent.** The proposed project is not a residential development. Nonetheless, the proposed project would include 21 electric-vehicle ready parking spaces, which would meet and exceed the CalGreen Code requirement.
Policy OSC-2.12: Open Spaces in New Development. Promote the inclusion of plazas, courtyards, landscaped commons, rooftop gardens/green space, and other publicly accessible open spaces within new commercial, industrial, and public facility development.	**Consistent/Not Applicable.** The project applicant has chosen not to provide publicly accessible open space on the project site, and although the policy calls to "promote" open space in new development, it does not require it. The City has determined that the project site, due to its distance from residences, and the project itself, which is anticipated to include large truck traffic, are not suitable candidates for public open space.
Policy T-3.6: Pedestrian Environment. Improve the walkability of all streets in San Leandro through the planning, implementing, and maintaining of pedestrian supportive infrastructure.	**Consistent.** As described on page 121 of the Initial Study (Appendix A to the Draft EIR), the project would include several pedestrian improvements to the site including lighting, internal sidewalks, improved landscaping, and pedestrian amenities. New sidewalks would also be constructed as part of the project along the project site frontage on Hester Street.

The determination of General Plan consistency is within the discretion of the City of San Leandro City Council. In making this determination, the applicable law requires the decision makers to view the proposed project against the General Plan as a whole and does not permit the elevation of certain specific General Plan policies over others. Nonetheless, as shown in the table above, the proposed project would be generally consistent with most of the relevant policies of the Environmental Justice Element of the City's General Plan.

Response 5.17

The commenter states that the Draft EIR provides general information about the census tract's CalEnviroScreen scores, but opines that the Draft EIR does not provide meaningful analysis regarding the health impacts and effects of severe pollution rates as they relate to environmental justice. The commenter asserts that the omission of this analysis conflicts with *State CEQA Guidelines* Section 15131(c).

The commenter is correct that the Draft EIR provides information describing the CalEnviroScreen scores for the census tract in which the project site is located. Specifically, this information is described in a Health Risk Assessment that Kimley Horn and Associates prepared for the project in November 2023. The Health Risk Assessment is provided as Appendix B to the Initial Study, which is provided as Appendix A to the Draft EIR. Page 11 of the Health Risk Assessment describes the project site as located within Census Tract 6001441503, which is within the 40-45 percentile CalEnviroScreen score. The Health Risk Assessment describes the nearest sensitive receptors to the east within the 25-30 percentile (Census Tract 6001443321) and 15-20 percentile (Census Tract 6001443322). The census tracts described in the Health Risk Assessment seem to be incorrect. According to CalEnviroScreen, the project site and the nearest sensitive receptors, to the east, are both in Census Tract 6001432400. Census Tract 6001432400 is >80-90th percentile. This error in census tract descriptions in the Health Risk Assessment does not affect the analysis or impact determination because air quality impacts of the project were evaluated at the closest sensitive receptor to the project site regardless of what census tract the receptor or project site are located. However, for informational purposes, page 11 of the Health Risk Assessment is revised as follows:

> According to CalEnviroScreen, the Project site ~~is located within Census Tract 6001441503, which is within the 40-45 percentile. However,~~ and the nearest sensitive receptors to the east are located within the ~~25-30~~ >80-90 percentile ~~(Census Tract 6001443321) and 15-20 percentile~~ (Census Tract ~~6001443322~~ 6001432400).

The commenter does not specify what type of pollution they believe the Draft EIR omits. However, this comment is under a heading titled "1.4 Issues Not Studied in Detail in the EIR: Air Quality and Energy and 4.1 Greenhouse Gas Emissions." Therefore, the City assumes the commenter is suggesting that the Draft EIR has omitted an analysis of air pollution impacts resulting from the project. Based on this assumption, the part of this comment about health impacts and pollution rates is similar to Comment 5.5. Please see Response 5.5. Briefly, as described therein, the proposed project would not exceed BAAQMD thresholds for emissions of criteria pollutants. Implementation of Mitigation Measure AQ-1 on pages 42 and 43 of the Initial Study would reduce fugitive dust emissions during project construction. A complete Health Risk Assessment was completed for the project at the nearest sensitive receptor (residence), and the project's health risk would not exceed applicable thresholds. The proposed project would not expose sensitive receptors to substantial pollutant concentrations. Impacts were determined to be less than significant (see Section 3, *Air Quality*, of the Initial Study).

The second part of this comment pertaining to omission of the health impacts and effects of severe pollution rates as they relate to environmental justice are not accurate. As stated in the previous paragraph, the Draft EIR does provide an analysis of the potential air quality impacts of the project, as well as potential health risk impacts. Additionally, while physical environmental impacts must be examined under CEQA, "the economic and social effects of proposed projects are outside CEQA's purview." (Guidelines, section 15131(a); *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1205). Therefore, formal analysis of economic or social impacts is not required, which includes impacts related to an individual or group of individuals' demographics or economic status through the context of environmental justice.

State CEQA Guidelines Section 15131(c) pertains to modifying a project to reduce its potentially significant effects. The potentially significant impacts of the project are related to greenhouse gases and due to the provision of natural gas plumbing in the proposed building. As stated in bold text on page 4.1-8 of the Draft EIR, the proposed project would have potential to contribute to the long-term generation of GHG emissions due to the provision of natural gas plumbing, and impacts would be significant and unavoidable. Page 4.1-9 of the Draft EIR states that there is no feasible mitigation to reduce this potentially significant impact. Page 4.1-9 of the Draft provides a thorough explanation of why there is no feasible mitigation, including modifying the project, to reduce the potentially significant GHG impacts of the project. Therefore, the Draft EIR has been prepared pursuant to *State CEQA Guidelines* Section 15131(c).

No further revisions to the Draft EIR are required in response to this comment.

Response 5.18

The commenter states that the Draft EIR excludes that the project site is listed as a Disadvantaged Community in the City's General Plan.

The commenter is correct that the project site is within a Disadvantaged Community identified in the General Plan, but the Draft EIR does not describe this existing condition. The Draft EIR does not describe the Disadvantaged Community status of the project site because that status is related to environmental justice. Please see Response 5.16 above for a detailed explanation of why environmental justice is not evaluated as a physical environmental impact in the Draft EIR. Accordingly, no revisions to the Draft EIR are required in response to this comment. However, please see Response 5.16 above for an analysis of project consistency with applicable policies of the Environmental Justice Element of the City's General Plan.

Response 5.19

The commenter states that CalEnviroScreen ranks the census tract in which the project site is located as worse than 92 percent of the rest of the state in overall pollution burden and 71 percent of the state overall in socioeconomic impacts.

The commenter is correct. According to CalEnviroScreen, the project site is in a census tract that is ranked in the 92nd percentile for overall pollution burden and 71st percentile for population characteristics (socioeconomic). The CalEnviroScreen rankings of the census tract do not pertain to the analysis of environmental impacts provided in the Draft EIR. Therefore, no revisions to the Draft EIR are required in response to this comment.

Response 5.20

The commenter suggests that the project site's census tract and surrounding community bears the impact of multiple sources of pollution and is more polluted than average on several pollution indicators measured by CalEnviroScreen. The commenter describes the exposure to diesel particulate matter (PM) and vehicle exhaust an example of the air pollution and associated health impacts that burden the census tract.

As discussed above in Response 5.17, Kimley Horn and Associates prepared a Health Risk Assessment for the project in November 2023. The Health Risk Assessment, which is included as Appendix B to the Initial Study, evaluates the potential for toxic air contaminant emissions from the project to have unacceptable health risks at the nearest sensitive receptor. Toxic air contaminants considered in the Health Risk Assessment include diesel particulate matter and other sources of particulate matter, such as dust from construction. The nearest sensitive receptor is a single-family residence northeast of the project site, which is in the same census tract as the project site (see page 7 of the Health Risk Assessment). The Health Risk Assessment includes an evaluation of the cumulative health risks, which are the health risks at the nearest sensitive receptor resulting from the project toxic air contaminant emissions combined with other existing toxic air contaminant emissions in the area. The Health Risk Assessment uses threshold established by the BAAQMD to determine the significance of cumulative health risks (see page 14 of the Health Risk Assessment). The results of the assessment are detailed in Chapter 5, *Potential Health Risk Impacts*, which begins on page 20 of the Health Risk Assessment. The results of the Health Risk Assessment are also summarized on pages 43 through 47 of the Initial Study. Specifically, as presented in Table 10, 2020 Cumulative Health Risk, on page 46 of the Initial Study, the cumulative health risks to the nearest sensitive receptor would be below applicable BAAQMD significance thresholds. Cumulative health risks were determined to be less than significant, as described on page 47 of the Initial Study.

In context with the overall comment letter, this comment was provided in regard to an environmental justice issue or impact. There are currently no formal requirements or procedures to evaluate potential environmental justice impacts under CEQA. Nonetheless, the Draft EIR evaluated health risk impacts from toxic air contaminants on the Disadvantaged Community because it evaluates impacts at a receptor site within the same census tract/community as the project site and related toxic air contaminant emissions. Accordingly, no revisions to the Draft EIR are required in response to this comment.

Response 5.21

The commenter describes how the project census tract ranks in 97th percentile for groundwater threats based on CalEnviroScreen and explains how disadvantaged community are exposed to drinking water contaminants more often compared to communities that are not disadvantaged.

In context with the overall comment letter, this comment was provided with regards to an environmental justice issue or impact. Please see Response 5.16 above for a detailed explanation of why environmental justice is not evaluated as a physical environmental impact in the Draft EIR. Additionally, potable water supply is discussed in the Draft EIR. As discussed on page 129 of the Initial Study, water service to the City of San Leandro is provided by the East Bay Municipal Utility District (EBMUD), a public utility. As further described on page 129 of the Initial Study, approximately 90 percent of the EBMUD water supply originates from the Sierra Nevada via the Mokelumne River watershed, with the other 10 percent sourced from runoff on East Bay Area watershed lands. Water delivered to San Leandro customers is treated at the Orinda or Upper San Leandro water treatment plants. Potable water is not from groundwater aquifers underlying the census tract in which the project is located. Further, this comment appears to discuss existing conditions and does not question the impact analysis in the Draft EIR. Additionally, the proposed project would include bioretention areas to treat stormwater runoff, which do not currently exist at the project site. This would potentially reduce contaminants in stormwater runoff from the project site compared to existing conditions. As previously mentioned, drinking water for San Leandro is not from runoff on the project site or from sources down gradient of the project site. Accordingly, no revisions to the Draft EIR are required in response to this comment.

Response 5.22

The commenter describes the project census tract as within CalEnviroScreen's 99th percentile for solid waste impacts and explains ways solid waste facilities can adversely affect the health of nearby populations.

The proposed project is a new warehouse, as described in Section 2, *Project Description*, of the Draft EIR. The proposed project does not include the construction or permitting of a new solid waste facility on the project site, in the surrounding census tract, or elsewhere. Additionally, the solid waste impacts of the project were evaluated on pages 135 and 136 of the Initial Study, which is included as Appendix A to the Draft EIR. As discussed on these pages of the Initial Study, project impacts related to solid waste would be less than significant. This comment also describes existing conditions characterizing health risks in the census tract and does not question the impact analysis in the Draft EIR. Additionally, in context with the overall comment letter, this comment was provided with regards to an environmental justice issue. There are currently no formal requirements or procedures to evaluate potential environmental justice impacts under CEQA (see Response 5.16). Therefore, no revisions to the Draft EIR are required in response to this comment.

Response 5.23

The commenter describes the project's census tract as bearing more impacts from cleanup sites than 90 percent of the state and describes how chemicals can mobilize and affect nearby communities.

In context with the overall comment letter, this comment was provided with regards to an environmental justice issue or impact. Please see Response 5.16 above for a detailed explanation of why environmental justice is not evaluated as a physical environmental impact in the Draft EIR. This comment also appears to describe existing conditions and does not question the analysis of impacts in the Draft EIR. Therefore, no revisions to the Draft EIR are required in response to this comment.

For informational purposes, the Draft EIR does evaluate the potential impacts associated with the release of or exposure to hazardous materials on the environment and people, regardless of whether the people are part of a disadvantaged community. Specifically, the Draft EIR describes the potential for hazardous materials to exist on the project site in the form of contaminated soil and groundwater. Specifically, page 4.2-2 of the Draft EIR states that the project site is considered a hazardous site due to subsurface contamination with chlorinated volatile organic compounds. As described on page 4.2-4 of the Draft EIR, a Land Use Covenant (LUC) for the project site was filed with Alameda County in 2012 that requires DTSC approval of planned future use of groundwater at the project site and a Soil Management Plan prior to planned disturbance of subsurface soil in two limited areas of the site.

Impact HAZ-1, beginning on page 4.2-11 of the Draft EIR, describes how project construction, including the installation of buried utilities, could results in significant impacts related to worker exposure to contaminated soil or groundwater. As described on page 4.2-13 of the Draft EIR, implementation of Mitigation Measure HAZ-2 and Mitigation Measure HAZ 3 is required to reduce risks to construction workers and reduce the impacts to less than significant. Mitigation Measure HAZ-2 requires implementation of the approved Revised Soil and Groundwater Management Plan during construction. Mitigation Measure HAZ-3 requires containment of dewatering effluent and obtaining a discharge permit if released from containment. As described on page 4.2-18 of the Draft EIR, with incorporation of Mitigation Measure HAZ-2, the provisions of the approved Soil and Groundwater Management Plan for the site would reduce potential hazardous materials impacts associated with the past on-site contamination during project construction. Additionally, implementation of Mitigation Measure HAZ-3 would protect the health of construction workers and the environment during construction dewatering activities. As the Draft EIR indicates that impacts related to contaminated soils or groundwater would be less than significant with implementation of these mitigation measures. Additionally, the applicant would be required to implement Mitigation Measure AQ-1 on pages 42 and 43 of the Initial Study. Mitigation Measure AQ-1 requires the project applicant to implement basic construction mitigation measures recommended by BAAQMD to reduce fugitive dust emissions. This would further prevent contaminated soils from becoming mobilized in the air during construction.

Response 5.24

The commenter describes that the project's census tract ranks in the 62nd percentile for toxic releases and describes that people residing near emissions of toxic releases may breathe contaminated air regularly or if contaminants are released during an accident.

In context with the overall comment letter, this comment was provided with regards to an environmental justice issue or impact. There are currently no formal requirements or procedures to evaluate potential environmental justice impacts under CEQA. This comment also appears to describe existing conditions and does not question the analysis of impacts in the Draft EIR. Therefore, no revisions to the Draft EIR are required in response to this comment.

This comment pertains to toxic air contaminants and is similar to Comment 5.5. For informative purposes, as described in Response 5.5, construction and operation of the project would generate toxic air contaminants, such as the exhaust from diesel construction equipment and diesel tractor trailers. The potential health risks of exposure to these contaminants at the nearest sensitive receptor to the project are evaluated in detail in the Health Risk Assessment that Kimley Horn and Associates prepared for the project in November 2023, which is Appendix B to the Initial Study. The results of the Health Risk Assessment are discussed on pages 43 through 47 of the Initial Study. As described therein, the project's health risk would not exceed applicable thresholds. The proposed project would not expose sensitive receptors to substantial pollutant concentrations and impacts would be less than significant (see Initial Study page 47).

Response 5.25

The commenter describes demographic characteristics of the population residing within the project's census tract. Examples of demographic characteristics the commenter describes include race and ethnicity, educational attainment, poverty status, and languages spoken.

In context with the overall comment letter, this comment was provided with regards to an environmental justice issue or impact. Please see Response 5.16 above for a detailed explanation of why environmental justice is not evaluated as a physical environmental impact in the Draft EIR. This comment pertains to the existing demographic composition of the population residing within the census tract of the project site, and does not question the analysis or impact determinations in the Draft EIR. Because the demographic composition is not related to the analysis of environmental impacts in the Draft EIR, the City has not confirmed if the demographic information reported by the commenter is accurate. No revisions to the Draft EIR are required in response to this comment.

Response 5.26

The commenter states that the project site is in a census tract identified as Disadvantage Community under Senate Bill 535 and asserts that the Draft EIR has not considered the project's environmental impacts in relation to the Senate Bill 535 status of the census tract. The commenter asserts that a revised EIR should be prepared to include the severity of environmental impacts particularly on these Disadvantaged Communities.

The commenter's statement that the project site is in a census tract identified as a Disadvantaged Community is similar to Comment 5.18. Please refer to Response 5.16 and Response 5.18. Briefly, as described therein, the project site is within a Disadvantaged Community, but the Draft EIR does not describe this existing condition. The Draft EIR does not describe the Disadvantaged Community status of the project site because that status is related to environmental justice. There are currently no formal requirements or procedures to evaluate potential environmental justice impacts under CEQA.

Senate Bill 535 establishes minimum funding levels allocated to Disadvantage Communities, primarily funding from the state's Cap-and-Trade Program. Senate Bill 535 does not pertain to impact analysis methodology or determinations in CEQA documents. Accordingly, the Draft EIR does not discuss Senate Bill 535. Accordingly, no revisions to the Draft EIR are required in response to this comment.

For informational purposes, the Draft EIR does evaluate environmental impacts of the project that could result in adverse impacts to the population residing within the same census tract as the project site. For example, as described in Response 5.20, the potential for substantial adverse health effects resulting from toxic air contaminant emissions of the project were evaluated at the nearest sensitive receptor. The nearest sensitive receptor is the nearest residence to the project site, which is a residence located within the same census tract/community as the project site.

Response 5.27

The commenter opines that a revised EIR must be prepared because the Draft EIR utilizes the California Emissions Estimator Model (CalEEMod) for determining the energy impacts of the project, but the State has not approved CalEEMod for this purpose. The commenter suggests the state has approved only three modeling software applications for non-residential energy use, none of which are CalEEMod.

The commenters assertion that CalEEMod was used in the Draft EIR to determine the significance of the potential energy impacts of the project is not completely accurate. The potential energy impacts of the project are evaluated in Section 6, *Energy*, of the Initial Study, which is included as Appendix A to the Draft EIR. As described therein, specifically on pages 62 and 63 on the Initial Study, the potential impacts of the project as they relate to wasteful, inefficient, or unnecessary consumption of energy resources was determined to be less than significant. The less than significant determination is not based on quantification of energy use compared to a numerical threshold. Instead, as discussed on pages 62 and 63 of the Initial Study, the significance determination of the impact relies primarily on mandatory regulations and codes that must be implemented during construction and operation of the project that are designed to reduce energy consumption. Examples of the regulations and codes described on pages 62 and 63 of the Initial Study include: California Air Resources Board's In-Use Off-Road Diesel-Fueled Fleets Regulation; California Building Standards Code (California Code of Regulations Title 24); California's CalGreen standards (California Code of Regulations Title 24, Part 11); and the 2022 Building Energy Efficiency Standards (California Code of Regulations Title 24, Part 6). While the less-than-significant energy impacts of the project identified in Section 6, *Energy*, of the Initial Study are not quantitative and do not rely upon CalEEMod, the potential energy consumption of the project was estimated using CalEEMod. The estimated energy use generated by CalEEMod was referred to in the preparation of the Draft EIR as supporting information in the determination of less than significant energy impacts. The CalEEMod datasheets are provided in Appendix A to the Initial Study.

Additionally, Section 6, *Energy*, of the Initial Study also provides an analysis of the consistency of the proposed project with the state and local renewable energy and energy efficiency plans. The analysis is presented in tabular format consisting of Table 12 and Table 13, beginning on page 63 and page 64, respectively. As described in these two tables, the proposed project would be consistent with State plans and the City's adopted energy conservation and efficiency strategies. This consistency analysis also informed the less than significant impact determination of energy impacts. This approach is consistent with the *State CEQA Guidelines*. Specifically, Appendix F of the *State CEQA Guidelines* states that environmental impacts related to energy may include "the degree to which the project complies with existing energy standards."

The three modeling software applications the commenter lists as approved by the state for modeling non-residential energy include CBECC-Com, EnergyPro, and IES VE. The commenter's assertion that the Draft EIR must use this modeling software or prepare a revised EIR using these applications to model energy use and determine the significance of impacts is not correct. According to the California Energy Commissions, CBECC-Com, EnergyPro, and IES VE are the approved models for demonstrating compliance with the 2022 Building Energy Efficiency Standards (Energy Code) in accordance with the California Code of Regulations: Title 24, Part 1, Article 1, Section 10-109 (California Energy Commission 2024).[1] Compliance with federal, state, and local regulations and code are mandatory as legal requirements. It is unnecessary to demonstrate compliance with Energy Code in the Draft EIR as compliance would be achieved through the implementation of uniformly applied development standards and state law. Accordingly, no revisions to the Draft EIR are required in response to this comment.

Response 5.28

The commenter states that the project site is in the Outer Approach Zone of the Oakland International Airport.

This comment is similar to Comment 3.7 provided in Letter 3. Therefore, please refer to Response 3.7 for a response to this comment.

Response 5.29

The commenter references text in both the Initial Study and Draft EIR describing how the project requires No Hazard Determinations from the Federal Aviation Administration. The commenter opines that a revised EIR must be prepared to include the Federal Aviation Administration documentation pursuant to *State CEQA Guidelines* Section 15121 and Section 15150(f), as well as Public Resources Code (PRC) 21003(b).

The commenter is correct that the project would require a No Hazard Determination from the Federal Aviation Administration. This portion of this comment pertaining to the project requiring a No Hazard Determination from the Federal Aviation Administration is similar to Comment 5.6. Please refer to Response 5.6. Briefly, as described therein, a No Hazard Determination for the warehouse was issued from the Federal Aviation Administration pursuant to Federal Aviation Regulations Part 77, because the proposed warehouse would have a maximum height of 50 feet. An additional No Hazard Determination may also be needed for the use of project construction equipment exceeding 43 feet in height.

Including the No Hazard Determinations for the proposed project in the Draft EIR is not necessary to adequately analyze and disclose the potential environmental effects of the project. Obtaining the applicable No Hazard Determinations from the Federal Aviation Administration is a legal requirement pursuant to Federal Aviation Regulations Part 77. Therefore, it is understood that the project applicant either has or would obtain the No Hazard Determinations or the project would otherwise not proceed, even if planning entitlements were approved by the City. Additionally, the No Hazard Determination for the proposed building has been issued and is on file at City Hall, available upon request.

State CEQA Guidelines Section 15121 does not require the inclusion of permits or permit applications in an EIR. Section 15121 of the *State CEQA Guidelines* describes the informational intent of EIRs and requires the lead agency to make findings for each significant effect in the EIR and prepare a statement of overriding consideration, as applicable.

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[1] California Energy Commission. 2024. 2022 Energy Code Compliance Software. Retrieved on August 22, 2024, from https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency-1

Section 15150 of the *State CEQA Guidelines* pertains to incorporation of documents by reference within an EIR. Section 15150 (f), specifically, states that incorporation by reference is most appropriate for including long, descriptive, or technical materials that provide general background but do not contribute directly to the analysis of the problem at hand. The Draft EIR is prepared consistent with Section 15150(f) because the No Hazard Determination only needs to be incorporated by reference because it is a regulatory requirement and does not affect the impact analysis or determinations in the Draft EIR. Consistent with *State CEQA Guidelines* Section 15150(b), the No Hazard Determination for the proposed warehouse is available for public inspection at City Hall, which is a public building.

Public Resources Code (PRC) 21003(b) states that CEQA documents should be organized and written in a manner that will be meaningful and useful to decision makers and the public. The Draft EIR is prepared in an organized manner. The Draft EIR is arranged to approximately correspond the contents of an EIR described in Article 9, *Contents of Environmental Impact Reports*, of the *State CEQA Guidelines*. The Draft EIR is written in a way that is useful to decision makers and the public in that it presents a summary of each impact in bold text, followed by a detailed analysis of the potential impact. The Draft EIR avoids extensive use of jargon and complex terminology, and instead attempts to use common language to the maximum extent feasible to increase its meaningfulness to the public and decision makers. The Draft EIR need not include the Federal Aviation Administration No Hazard Determination in order for it to be meaningful or useful. As described in earlier paragraphs of this response, obtaining the No Hazard Determinations is required and mandated by federal law. For this reason, decision makers and the public are able to assume that No Hazard Determinations have or will be issued if the project proceeds. Therefore, no revisions to the Draft EIR are required in response to this comment.

Response 5.30

The commenter asserts that the Draft EIR must include revised building elevations that are legible to the public, not blurry, and depict the height of the building to verify it is consistent with the Federal Aviation Administration review.

This comment is similar to Comment 5.11. Please refer to Response 5.11. Briefly, as described therein, the Draft EIR includes the details the commenter requests be shown on building elevations, including building height, materials, and color palette. The Draft EIR also contains a building elevation as Figure 2-5, which does not appear blurry when viewed by City staff. No revisions to the Draft EIR are required in response to this comment.

Response 5.31

The commenter opines that a revised EIR must be prepared that identifies a significant impact associated with project construction resulting in safety hazards or excessive noise in combination with airport operations.

As described on page 2-14 of the Draft EIR, a crawler crane with a boom height of up to approximately 161 feet (reduced to 140 feet as explained in the response to Letter 3b) would be required for project construction. Page 2-17 of the Draft EIR states that a ‘No Hazard Determination’ from the Federal Aviation Administration may be necessary for the use of project construction equipment exceeding 43 feet in height, which would include the crawler crane with a maximum height of 140 feet (see Letter 3b). The project applicant must obtain the necessary determinations from the Federal Aviation Administration pursuant to Federal Aviation Regulations Part 77. The project applicant must abide by all conditions of the determination, including equipment height limitations specified in the determination, as applicable. Because the applicant must abide by federal regulations and obtain required No Hazard Determinations from the Federal Aviation Administration, as applicable, the project would not expose project construction workers to safety hazards associated with airport operations.

Potential noise impacts of the project are evaluated in Section 4.3, *Noise and Vibration*, of the Draft EIR, which begins on page 4.3-1. As shown in Table 4.3-2 on page 4.3-12 of the Draft EIR, project construction equipment would generate noise levels of up to approximately 84 dDBA Leq measured 50 feet from the equipment. Therefore, project construction workers would be potentially exposed to noise levels of approximately 84 dDBA, not accounting for hearing protection that may be required by workplace safety practices and regulations, such as OSHA regulations. As described on page 4.3-20 of the Draft EIR, the easternmost portion of the project site is within the 60 dBA CNEL contour of the Oakland International Airport (Alameda County Community Development Department 2010). Due to the logarithmic nature of decibels, when one sound source is at least 10 dBA less than another sound source, the quieter sound source will have a negligible effect on the overall sound level. In the case of the proposed project, the airport noise is estimated at 24 dBA less than construction noise (84 dBA – 60 dBA = 24 dBA). Accordingly, noise from airport operations would have negligible effects on the construction noise levels within the project site. In other words, during project construction, construction noise levels at the site would either be equivalent to noise produced by the construction equipment or by ambient noise levels when construction equipment is not operational. For this reason, project construction would not expose people working in the project area to excessive noise levels.

As demonstrated in the prior two paragraphs, while the project site is proximate to the Oakland International Airport, the project would not result in a safety hazard or excessive noise for people working in the project area during construction. Impacts would be less than significant with mandatory adherence to Federal Aviation Regulations Part 77 and the construction practices the applicant has agreed to in coordination with the Port of Oakland (see Letter 3b). Accordingly, no revisions to the Draft EIR are required in response to this comment.

Response 5.32

The commenter suggests that the that Draft EIR underreports the vehicle miles traveled (VMT) generated from project operations, explaining how trucks and vans would depart the project site and travel across the region at high rates.

As described on page 4.4-5 of the Draft EIR, the analysis of VMT impacts is based on a Transportation Analysis prepared by Kimley-Horn for the proposed project, which is included as Appendix C to the Draft EIR. As summarized on page 4.4-5 of the Draft EIR and discussed in the Transportation Analysis, the VMT generated by the proposed project was estimated by referring to VMT estimates produced by the Alameda County Transportation Commission for 2020 and 2040. The Alameda County Transportation Commission developed their VMT estimates on a TAZ basis using the Alameda Countywide Travel Model.

According to the Transportation Analysis (Appendix C) and the Alameda County Transportation Commission (2019), the project site is in a TAZ with a VMT of 15.34 per employee in 2020 (see Draft EIR page 4.4-6). Therefore, as described on Draft EIR page 4.4-6, the Transportation Analysis determined that the proposed project would also generate 15.34 VMT per employee, consistent with the 2020 VMT of the TAZ. This is a reasonable assumption because the TAZ covers a limited area surrounding the project site that is characterized by warehouses and industrial land uses, consistent with the proposed project. In other words, the proposed project would be in a TAZ that the Alameda County Transportation Commission indicates has an average VMT per employee of 15.34, and because the project would be a warehouse use similar to much of the other land uses in the TAZ, would be consistent with the average VMT per employee of 15.34. As noted on page 4.4-6 of the Draft EIR, the Alameda County Transportation Commission VMT maps are consistent with methodology specified by the Governor's Office of Planning and Research.

As described on page 2-8 of the Draft EIR, there is no specific known land use and/or tenant proposed at this time. Therefore, the comment may be inaccurate in assuming that project operations would involve high rates of truck and van departures from the project site. For example, potential tenants of the building may not include routine delivery, resulting in fewer truck and van trips. However, the proposed building includes office space and sixty-four loading docks plus space for employee parking and additional truck parking, as described in Section 2, *Project Description*, of the Draft EIR. The provision of spaces for truck activity and offices suggests that the building would likely be utilized for more than storage. Therefore, project operations could involve routine truck and van trips to offsite locations, such as for deliveries to final destinations. However, the methodology used for the VMT analysis in the Transportation Analysis and thus the Draft EIR accounts for VMT per employee, consistent with existing land uses in same TAZ, which include various warehouses.

The commenter provides no additional explanation or information on why they suggest the project would result in substantially high rates of vehicle trips compared to other similar industrial and warehouse land uses in the area. Therefore, it is reasonable for the Transportation Analysis and Draft EIR to rely upon the average VMT of these existing similar uses in a similar location to estimate project VMT. As described on pages 4.4-6 and 4.4-7 of the Draft EIR, the project VMT of 15.34 miles per employee is below the 2020 VMT threshold of 16.3 miles per employee. Therefore, the proposed project would not conflict or be inconsistent with *State CEQA Guidelines* Section 15064.3, subdivision (b), as it pertains to VMT. Impacts would be less than significant. No revisions to the Draft EIR are required in response to this comment.

Response 5.33

The commenter opines that operation of the project would generate VMT that is inconsistent with the significance threshold and legislative intent of Senate Bill 743 to reduce greenhouse gas (GHG) emissions by reducing VMT.

As described on page 15 of the Transportation Analysis prepared by Kimley-Horn for the proposed project, which is included as Appendix C to the Draft EIR, the Project's VMT evaluation relied on guidance provided by the Governor's Office of Planning and Research (OPR) Technical Advisory on Evaluating Transportation Impacts in CEQA to determine potential impacts under Senate Bill 743. It should be noted that the ACTC VMT tools and maps are consistent with OPR methodology and the recommended 15 percent below regional average significance threshold.

The significance thresholds used to analyze the GHG impacts of the project are those adopted by the BAAQMD, as detailed in Response 4.2. The thresholds include several parameters relating to building design and transportation. With regard to transportation, for GHG impacts to be less than significant, the project must achieve a reduction in project-generated VMT below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA. The entire BAAQMD significance threshold is discussed on page 4.1-7 of the Draft EIR.

Both the Transportation Analysis and the analysis of GHG impacts in the Draft EIR rely upon a reduction of project-generate VMT to levels at least 15 percent the regional average. Guidance from the OPR for compliance with Senate Bill 743 also recommends 15 percent below average as the significance threshold for VMT. Accordingly, the Draft EIR does utilize significance thresholds consistent with Senate Bill 743 for determining both transportation and GHG impacts.

As discussed on page 4.1-8 of the Draft EIR, the project VMT per capita would be at least 15 percent below regional VMT per capita and sufficient electric-vehicle ready parking spaces would be provided, and the proposed project would satisfy the transportation component of BAAQMD GHG significance criteria. However, as described in Response 5.17, the proposed project would have a potentially significant and unavoidable impact on GHG due to the provision of natural gas plumbing in the proposed building, which is unrelated to transportation/mobile source GHG emissions.

Because the Draft EIR evaluates both transportation and GHG impacts using thresholds consistent with Senate Bill 743, it is unnecessary to revise the Draft EIR to include another or different significance threshold aligned with the legislative intent suggested by the commenter. No revisions to the Draft EIR are required in response to this comment.

Response 5.34

The commenter opines that a revised EIR must be prepared to reflect a quantified VMT analysis that includes all truck/trailer and delivery van activity of the project.

This comment is similar to Comment 5.32. Please refer to Response 5.2. Briefly, as described therein, project VMT is based on average VMT from existing land uses in the same TAZ as the project site. The TAZ includes warehouses and industrial buildings similar to the proposed building, with truck parking and truck docks. Therefore, it is reasonable for the Transportation Analysis and Draft EIR to rely upon the average VMT of these existing similar uses in a similar location to estimate project VMT. No revisions to the Draft EIR are required in response to this comment.

Response 5.35

The commenter opines that the Draft EIR provides an inadequate analysis of transportation hazards due to geometric design features or the potential for the project to result in inadequate emergency access. The commenter asserts that the Draft EIR excludes analysis or discussion of the available maneuvering and queueing space for trucks/trailers at the intersection of the project driveways and the adjacent streets, or throughout the site.

Tractor trailers on the project site would be travelling at low speeds and performing maneuvers that require low-speed travel, such as operating in reverse to align with dock doors and parking in striped spaces. Tractor trailers would not be traveling at speeds such that they would collide with oncoming trucks operating on the project site. Tractor trailers routinely maneuver around warehouses and other developed areas without colliding, such as narrow streets in downtown areas. Therefore, there would be no significant impacts related to truck circulation hazards. No revisions to the Draft EIR are required in response to this comment.

Response 5.36

The commenter suggests that a revised EIR must be prepared to include an accurate cumulative analysis discussion to demonstrate the impact of the proposed project in a cumulative setting.

The Draft EIR evaluates the potential cumulative impacts of the proposed project. As described on page 3-2 of the Draft EIR, consistent with *State CEQA Guidelines* Section 15130, the discussion in the Draft EIR focuses on the identification of significant cumulative impacts and, where present, the extent to which the proposed project would constitute a considerable contribution to the cumulative impact. As stated on page 3-2, CEQA requires cumulative impact analysis in EIRs to consider either a list of past, planned, and pending projects that may contribute to cumulative effects or a forecast of future development potential. The past, currently planned and pending projects in San Leandro used in the analysis of cumulative impacts in the Draft EIR are listed in Table 3-1 on page 3-3.

The commenter's suggestion that either Section 5.1, *Growth Inducement*, or Section 5.2, *Irreversible Environmental Effects*, of the Draft EIR must include a cumulative analysis discussion is factually incorrect. The State CEQA Guidelines do not require either of these EIR sections to include a cumulative analysis. The analysis of cumulative impacts in the Draft EIR is presented in each resource topic within Section 4, *Environmental Impact Analysis*, beginning on page 4-1 of the Draft EIR. The cumulative GHG impacts of the project are described in Section 4.1.4, *Cumulative Impacts*, on page 4.1-13 of the Draft EIR. As described therein, cumulative projects have results in significant cumulative impacts related to GHG. The cumulative GHG impacts of the proposed project would be significant. The cumulative hazards and hazardous materials impacts of the project are described in Section 4.2.4, *Cumulative Impacts*, on page 4.2-19 of the Draft EIR. As described therein, the would be no significant cumulative impacts related to hazards and hazardous materials. The cumulative noise and vibration impacts of the project are described in Section 4.3.4, *Cumulative Impacts*, on pages 4.3-20 and 4.3-21 of the Draft EIR. As described therein, there would be no significant cumulative noise and vibration impacts. The cumulative transportation impacts of the project are described in Section 4.4.4, *Cumulative Impacts*, on pages 4.4-7 and 4.4-8 of the Draft EIR. As described therein, the transportation impacts of the project, including VMT and transportation hazard impacts, would be less than significant.

Impacts that were not evaluated in detail in the Draft EIR are evaluated in the Initial Study, which is provided as Appendix A to the Draft EIR. Impacts evaluated in the Initial Study but not in detail in the EIR are less than significant, including cumulative impacts. Specifically, as described on page 140 of the Initial Study, most of the potential impacts of the proposed project would be less than significant, either with or without mitigation, depending on the specific impact. These less than significant impacts would not have considerable contributions to a significant cumulative impact because they're either site specific, such as impacts to paleontological resources, or because the project is consistent with standards and programs, such as zoning standards established in the San Leandro Municipal Code pertaining to aesthetics. Other less than significant impacts would not contribute to potentially significant impacts because they have negligible impacts to existing conditions, such as impacts to population and housing, public services, and recreation.

As the Draft EIR, including the Initial Study, does provide an analysis of potential cumulative impacts consistent with *State CEQA Guidelines* Section 15130, no revisions to the Draft EIR are required in response to this comment.

Response 5.37

The commenter suggests that Section 5.1, *Growth Inducement*, and 5.2, *Irreversible Environmental Effects*, of the Draft EIR do not include buildout conditions of the City's General Plan and should be revised to include this information so that the proposed project can be compared for consistency with the General Plan EIR impact determinations. The commenter also suggests the Draft EIR tiers from the General Plan EIR.

The commenter's suggestion that the Draft EIR tiers from the City's General Plan EIR is incorrect. The Draft EIR does include information from the General Plan, such as policies for example, but does not tier from the EIR that was completed and certified for the General Plan. The Draft EIR is a project-level EIR that evaluates the environmental effects of the proposed project, separate and independent from the impacts analysis completed for the General Plan EIR. Because the Draft EIR does not tier from the City's General Plan EIR, it is unnecessary to determine if project impacts would be more severe than the impacts identified in the General Plan EIR. Instead, the Draft EIR evaluates and discloses the potential environmental impacts of the project, including its potential impacts related to growth inducement and irreversible effects, regardless and separate from impacts of implementing the General Plan. Therefore, no revisions to the Draft EIR are required in response to this comment.

Response 5.38

The commenter suggests that the project would generate 200 employees, which would be a significant amount of growth. The commenter suggests that the employment growth of the project should be added to other jobs created by nearby industrial projects to determine if cumulative growth would exceed the City's growth forecast.

This comment is similar to Comment 5.5 and Comment 5.7. Please refer to responses 5.5 and 5.7 for a detailed response on the growth inducement impact analysis of the project. Briefly, as described therein, the proposed project would rely primarily on local workforce, would be in an area with existing infrastructure, and would demolish a building previously used for employment. For these reasons, Draft EIR concludes the proposed project would not result in substantial growth resulting in significant environmental impacts. Additionally, as described on page 2-9 of the Draft EIR, the proposed project would generate an estimated 152 employees. An estimated 152 employees would not represent substantial population growth in the San Francisco Bay or San Leandro, even if the workforce were not expected to be local. No revisions to the Draft EIR are required in response to this comment.

Additionally, the commenter does not provide an explanation of how or why growth would result in potentially significant environmental effects. The commenter does not suggest or list potentially significant impacts resulting from growth in this comment. Therefore, it is unclear why a cumulative growth analysis would be required in the Draft EIR as the commenter suggests, because it would not inform an environmental impact determination. Accordingly, no revisions to the Draft EIR are required in response to this comment.

Response 5.39

The commenter suggests that the Draft EIR is flawed, and a revised EIR must be prepared for the proposed project based on the earlier comments in the comment letter.

As discussed in response 5.1 through 5.38, above, no revisions to the EIR are required in response to this comment letter.

Response 5.40

The commenter requests to be added to the project mailing list.

This comment does not question the analysis or conclusions of the Draft EIR. Therefore, no revisions to the Draft EIR are necessary in response to this comment. At the request of the commenter, the City has updated its mailing list to include this commenter.

Response 5.Exhibit A

The commenter includes a letter report written by SWAPE, reviewing the Draft EIR and providing opinions to the adequacy of the Draft EIR with regards to air quality, health risk assessment, and GHG emissions. Exhibit A contains several comments which have not been directly addressed in the earlier responses to this comment letter. These comments are addressed below.

Response 5A.1

The commenter summarizes the process by which CalEEMod can be adjusted to incorporate details specific to a project, and that these adjustments must be supposed by substantial evidence when used for CEQA. The commenter asserts that the CalEEMod output files in the Air Quality Assessment for the project are inconsistent with project information in the Draft EIR and therefore unsubstantiated. The commenter opines that for this reason, the construction emissions of the project may be underestimated in the Draft EIR.

The commenter does not provide details in this comment pertaining to what project-specific adjustments used in the Air Quality Assessment differ from the project description provided in the Draft EIR. Therefore, no further response to this comment is possible. However, later comments provided in Exhibit A do provide more details. Please refer to those comments for detailed responses.

Response 5A.2

The commenter asserts that the default construction schedule and phasing lengths provided in CalEEMod were adjusted for the proposed project without providing substantiated evidence for the adjustment. The commenter opines that the adjusted phasing lengths used for the project CalEEMod would result in more construction days, thereby resulting in less construction emissions per day, and therefore cannot be relied upon for determining impact severity.

The commenter is correct that the default construction schedule and phasing lengths provided in CalEEMod were adjusted for the proposed project. However, the commenter is factually incorrect in suggesting that the modified rate is unsubstantiated. The CalEEMod datasheets for the proposed project are provided as Appendix A to the Air Quality Assessment, which is provided as Appendix A to the Initial Study. Page 1 of the CalEEMod datasheets notes that construction phasing is based on the anticipated construction schedule of the project. In other words, project specific construction phasing was used in CalEEMod instead of the default phasing. This is further explained on page 39 of the Initial Study, stating that the project construction emissions were analyzed based on the applicant-provided information regarding the construction schedule and types of construction equipment used. Adjusting CalEEMod defaults to use project-specific information, such as anticipated construction phasing, provides a more accurate model result of the project emissions, as the results are based on the proposed activities rather than generic assumptions built into CalEEMod.

As described on page 41 of the Initial Study, construction-related emissions would not exceed BAAQMD thresholds. Therefore, project construction would not result in a cumulatively considerable net increase of a criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard. Implementation of Mitigation Measure AQ-1, found on pages 42 and 43 of the Initial Study, is required to reduce impacts associated with fugitive dust emissions during project construction. As described on page 43, with implementation of Mitigation Measure AQ-1, air quality impacts of the project would be less than significant.

As the Draft EIR, including the Initial Study and the Air Quality Assessment, do provide an explanation of why CalEEMod defaults were adjusted for project construction phasing and activities, no revisions to the Draft EIR are required in response to this comment.

Response 5A.3

The commenter suggests that when CalEEMod default values for construction phasing lengths are used for the proposed project, construction emissions would exceed regulatory thresholds of significance. The commenter provides CalEEMod output datasheets showing emissions that exceed thresholds based on default construction phasing lengths.

This comment is similar to Comment 5A.2. Please see Response 5A.2. Briefly, as described therein, the CalEEMod default values for construction phasing were adjusted to match the anticipated construction for proposed project. Because the construction phasing used in the Air Quality Assessment in the Draft EIR is project specific, the construction emissions estimated from CalEEMod are more accurate than the CalEEMod default, which do not closely align with the anticipated project construction schedule. Therefore, the commenter’s assertion that project construction would have significant air quality impacts based on default construction phasing values is not accurate, because the default values are not as representative of the proposed project as the actual phasing information. As described in Response 5A.2, when project-specific adjustments are made to the defaults, construction emissions would be below regulatory thresholds. Impacts would be less than significant. No revisions to the Draft EIR are required in response to this comment.

Response 5A.4

The commenter asserts that the proposed project would result in significant and unavoidable impacts related to GHG and suggests there are mitigation measures that would reduce potential GHG emissions of the project. The commenter provides a list of measures that they suggest would reduce GHG emissions.

This comment is similar to comments 4.2 through 4.14, which were provided in Comment Letter 4. Please see responses 4.2 through 4.14 for a detailed response. Briefly, as stated therein, the Draft EIR was prepared using the BAAQMD 2022 CEQA Guidelines significance thresholds for GHG impacts. The threshold states that a project would have a potentially significant impacts if new natural gas plumbing is proposed. The BAAQMD threshold does not require or direct lead agencies to attempt to quantify GHG emissions and reduce them below a target amount. Instead, the threshold is about reducing depending on natural gas by avoiding the long-term commitment to its use in new construction. The mitigation measures recommended in Comment Letter 4 and in this comment attempt to reduce GHG emissions of the project but do not eliminate natural gas from the proposed project. Therefore, the recommended mitigation measures would not reduce or avoid the potentially significant GHG impacts of the project, which are related to long-term commitment to natural gas. As described in responses 4.2 through 4.14, no revisions to the Draft EIR are required.

Response 5A.5

The commenter states that they may revise their comment letter in the future, and that the comment letter may contain informational gaps and inconsistencies.

This comment does not question the analysis or conclusions of the Draft EIR. Therefore, no revisions to the Draft EIR are necessary in response to this comment. The public comment period for the Draft EIR ended on August 5, 2024.

LETTER 6

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RE: City of San Leandro's 880 Doolittle Drive Project – Draft Environmental Impact Report (SCH# 2023110597)

Dear Cindy Lemaire,

On behalf of the Carpenters Union Local 713 ("**Local 713**"), our firm is submitting these comments for the City of San Leandro's ("**City**") Draft Environmental Impact Report ("**DEIR**") for the 880 Doolittle Drive Project ("**Project**").

The Project's Notice of Availability ("**NOA**") for the DEIR contains the following Project Description:

> The proposed project consists of consolidating the two parcels comprising the project site into a single parcel, demolishing existing vacant structures, and developing a new industrial shell building on the site. The proposed project also includes a new surface parking lot, internal circulation roadways, landscaping, and new utility connections, including natural gas. The proposed warehouse would be approximately 244,573 square feet, comprised of a 229,573 square-foot of warehouse and 15,000 square feet of associated office space. Approximately 10,000 square feet of office space would be provided on the ground floor, and approximately 5,000 square feet of office space would be on a mezzanine level. The maximum building height would be 50 feet with an interior clear height of 40 feet. Sixty-four loading docks are proposed. Traditional doors for egress and ingress to the building would also be provided. 6.1

> Access to the project site would be from the existing driveway on Doolittle Drive in the southwest area of the site, and from an existing driveway the end of Hester Street in the northern area of the site. The proposed project would include reconstruction of the driveways to meet City standards and current ADA requirements. Additionally, a new, second, driveway to the site would be constructed at the end of Hester Street, providing a total of three driveways. A total of 204 parking spaces would be provided on-site for passenger vehicles, which would be located primarily in a new surface parking lot on the west side of the proposed building. Approximately 59 parking spaces sized for tractor trailers would be on the north side of the warehouse. A total of 24 bicycle parking spaces would be provided. 6.1
>
> The project would require a Use Permit, Site Plan Review, Height Exception, Building Permit, Grading Permit, and Tree Removal Permit. The project may also require approval(s) from the Federal Aviation Administration and the Department of Toxic Substances Control.

NOA of DEIR, p. 1.

Local 713 represents thousands of union carpenters in Alameda County and has a strong interest in well-ordered land use planning and in addressing the environmental impacts of development projects.

Individual members of Local 713 live, work, and recreate in the City and surrounding communities and would be directly affected by the Project's environmental impacts.

Local 713 expressly reserves the right to supplement these comments at or prior to hearings on the Project, and at any later hearing and proceeding related to this Project. 6.2
Gov. Code, § 65009, subd. (b); Pub. Res. Code, § 21177, subd. (a); see *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal.App.4th 1184, 1199-1203; see also *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal.App.4th 1109, 1121.

Local 713 incorporates by reference all comments related to the Project or its CEQA review, including the Environmental Impact Report. See *Citizens for Clean Energy v City of Woodland* (2014) 225 Cal.App.4th 173, 191 (finding that any party who has objected to the project's environmental documentation may assert any issue timely raised by other parties).

Moreover, Local 713 requests that the City provide notice for any and all notices referring or related to the Project issued under the California Environmental Quality Act (**CEQA**) (Pub. Res. Code, § 21000 *et seq.*), and the California Planning and Zoning Law ("**Planning and Zoning Law**") (Gov. Code, §§ 65000–65010). California Public Resources Code Sections 21092.2, and 21167(f) and California Government Code Section 65092 require agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body. 6.3

I. THE CITY SHOULD REQUIRE THE USE OF A LOCAL WORKFORCE TO BENEFIT THE COMMUNITY'S ECONOMIC DEVELOPMENT AND ENVIRONMENT

The City should require the Project to be built by contractors who participate in a Joint Labor-Management Apprenticeship Program approved by the State of California and make a commitment to hiring a local workforce.

Community benefits such as local hire can also be helpful to reduce environmental impacts and improve the positive economic impact of the Project. Local hire provisions requiring that a certain percentage of workers reside within 10 miles or less of the Project site can reduce the length of vendor trips, reduce greenhouse gas emissions, and provide localized economic benefits. As environmental consultants Matt Hagemann and Paul E. Rosenfeld note:

> [A]ny local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site. 6.4

March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling.

Workforce requirements promote the development of skilled trades that yield sustainable economic development. As the California Workforce Development Board and the University of California, Berkeley Center for Labor Research and Education concluded:

> [L]abor should be considered an investment rather than a cost—and investments in growing, diversifying, and upskilling California's workforce can positively affect returns on climate mitigation efforts. In other words,

> well-trained workers are key to delivering emissions reductions and moving California closer to its climate targets.[1]

Furthermore, workforce policies have significant environmental benefits given that they improve an area's jobs-housing balance, decreasing the amount and length of job commutes and the associated greenhouse gas (GHG) emissions. In fact, on May 7, 2021, the South Coast Air Quality Management District found that that the "[u]se of a local state-certified apprenticeship program" can result in air pollutant reductions.[2] 6.4

Locating jobs closer to residential areas can have significant environmental benefits. As the California Planning Roundtable noted in 2008:

> People who live and work in the same jurisdiction would be more likely to take transit, walk, or bicycle to work than residents of less balanced communities and their vehicle trips would be shorter. Benefits would include potential reductions in both vehicle miles traveled and vehicle hours traveled.[3] 6.5

Moreover, local hire mandates and skill-training are critical facets of a strategy to reduce vehicle miles traveled (VMT). As planning experts Robert Cervero and Michael Duncan have noted, simply placing jobs near housing stock is insufficient to achieve VMT reductions given that the skill requirements of available local jobs must match those held by local residents.[4] Some municipalities have even tied local hire and

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[1] California Workforce Development Board (2020) Putting California on the High Road: A Jobs and Climate Action Plan for 2030 at p. ii, *available at* https://laborcenter.berkeley.edu/wp-content/uploads/2020/09/Putting-California-on-the-High-Road.pdf.

[2] South Coast Air Quality Management District (May 7, 2021) Certify Final Environmental Assessment and Adopt Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions Program, and Proposed Rule 316 – Fees for Rule 2305, Submit Rule 2305 for Inclusion Into the SIP, and Approve Supporting Budget Actions, *available at* http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2021/2021-May7-027.pdf?sfvrsn=10.

[3] California Planning Roundtable (2008) Deconstructing Jobs-Housing Balance at p. 6, *available at* https://cproundtable.org/static/media/uploads/publications/cpr-jobs-housing.pdf

[4] Cervero, Robert and Duncan, Michael (2006) Which Reduces Vehicle Travel More: Jobs-Housing Balance or Retail-Housing Mixing? Journal of the American Planning Association 72 (4), 475-490, 482, *available at* http://reconnectingamerica.org/assets/Uploads/UTCT-825.pdf.

other workforce policies to local development permits to address transportation issues. Cervero and Duncan note that:

> In nearly built-out Berkeley, CA, the approach to balancing jobs and housing is to create local jobs rather than to develop new housing. The city's First Source program encourages businesses to hire local residents, especially for entry- and intermediate-level jobs, and sponsors vocational training to ensure residents are employment-ready. While the program is voluntary, some 300 businesses have used it to date, placing more than 3,000 city residents in local jobs since it was launched in 1986. When needed, these carrots are matched by sticks, since the city is not shy about negotiating corporate participation in First Source as a condition of approval for development permits. 6.5

Recently, the State of California verified its commitment towards workforce development through the Affordable Housing and High Road Jobs Act of 2022, otherwise known as Assembly Bill No. 2011 ("**AB2011**"). AB2011 amended the Planning and Zoning Law to allow ministerial, by-right approval for projects being built alongside commercial corridors that meet affordability and labor requirements. 6.6

The City should consider utilizing local workforce policies and requirements to benefit the local area economically and to mitigate greenhouse gas, improve air quality, and reduce transportation impacts. 6.7

II. THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

CEQA is a California statute designed to inform decision-makers and the public about the potential significant environmental effects of a project. 14 California Code of Regulations ("**CEQA Guidelines**"), § 15002, subd. (a)(1).[5] At its core, its purpose is to "inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made. Thus, the EIR 'protects not only the environment but also informed self-government[.]'" *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564 (internal citation omitted). 6.8

[5] The CEQA Guidelines, codified in Title 14 of the California Code of Regulations, section 15000 et seq., are regulatory guidelines promulgated by the state Natural Resources Agency for the implementation of CEQA. Pub. Res. Code, § 21083. The CEQA Guidelines are given "great weight in interpreting CEQA except when . . . clearly unauthorized or erroneous." *Center for Biological Diversity v. Dept. of Fish & Wildlife* (2015) 62 Cal.4th 204, 217.

CEQA directs public agencies to avoid or reduce environmental damage, when possible, by requiring alternatives or mitigation measures. CEQA Guidelines, § 15002, subds. (a)(2)-(3); see also *Berkeley Keep Jets Over the Bay Committee v. Board of Port Commissioners of the City of Oakland* (2001) 91 Cal.App.4th 1344, 1354; *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 400. The Environmental Impact Report (EIR) serves to provide public agencies and the public in general with information about the effect that a proposed project is likely to have on the environment and to "identify ways that environmental damage can be avoided or significantly reduced." CEQA Guidelines, § 15002, subd. (a)(2).

A public agency must prepare an EIR whenever substantial evidence supports a "fair argument" that a proposed project "may have a significant effect on the environment." Pub. Res. Code, §§ 21100, 21151; CEQA Guidelines, §§ 15002, subds. (f)(1)-(2), 15063; *No Oil, supra,* 13 Cal.App.3d at p. 75; *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 111-112. If the project has a significant effect on the environment, the agency may approve the project only upon finding that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that any unavoidable significant effects on the environment are "acceptable due to overriding concerns" specified in Public Resources Code section 21081. See CEQA Guidelines, §§ 15092, subds. (b)(2)(A)-(B). **6.8**

Essentially, should a lead agency be presented with a fair argument that a project may have a significant effect on the environment, the lead agency shall prepare an EIR even though it may also be presented with other substantial evidence that the project will not have a significant effect. CEQA Guidelines, §§ 15064(f)(1)-(2); see *No Oil, supra,* 13 Cal.App.3d at p. 75 (internal citations and quotations omitted). Substantial evidence includes "enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached." CEQA Guidelines, § 15384, subd. (a).

The EIR has been described as "an environmental 'alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return." *Berkeley Keep Jets Over the Bay v. Bd. of Port Comm'rs.* (2001) 91 Cal. App. 4th 1344, 1354 ("*Berkeley Jets")*; *County of Inyo v. Yorty* (1973) 32 Cal. App. 3d 795, 810.

The preparation and circulation of an EIR is more than a set of technical hurdles for agencies and developers to overcome. *Communities for a Better Environment v. Richmond* (2010) 184 Cal.App.4th 70, 80 (quoting *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 449-450). The EIR's function is to ensure that government officials who decide to build or approve a project do so with a full understanding of the environmental consequences and, equally important, that the public is assured those consequences have been considered. *Id.* For the EIR to serve these goals it must present information so that the foreseeable impacts of pursuing the project can be understood and weighed, and the public must be given an adequate opportunity to comment on that presentation before the decision to go forward is made. *Id.*

A strong presumption in favor of requiring preparation of an EIR is built into CEQA. This presumption is reflected in what is known as the "fair argument" standard under which an EIR must be prepared whenever substantial evidence in the record supports a fair argument that a project may have a significant effect on the environment. *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1602; *Friends of "B" St. v. City of Hayward* (1980) 106 Cal.3d 988, 1002. **6.8**

The fair argument test stems from the statutory mandate that an EIR be prepared for any project that "may have a significant effect on the environment." Pub. Res. Code, § 21151; see *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.App.3d 68, 75 (hereafter, "*No Oil*"); accord *Jensen v. City of Santa Rosa* (2018) 23 Cal.App.5th 877, 884 (hereafter, "*Jensen*"). Under this test, if a proposed project is not exempt and may cause a significant effect on the environment, the lead agency must prepare an EIR. Pub. Res. Code, §§ 21100, subd. (a), 21151; CEQA Guidelines, §§ 15064, subds. (a)(1), (f)(1). An EIR may be dispensed with only if the lead agency finds no substantial evidence in the initial study or elsewhere in the record that the project may have a significant effect on the environment. *Parker Shattuck Neighbors v. Berkeley City Council* (2013) 222 Cal.App.4th 768, 785. In such a situation, the lead agency *must* adopt a negative declaration. Pub. Res. Code, § 21080, subd. (c)(1); CEQA Guidelines, §§ 15063, subd. (b)(2), 15064, subd. (f)(3).

"Significant effect upon the environment" is defined as "a substantial or potentially substantial adverse change in the environment." Pub. Res. Code, § 21068; CEQA Guidelines, § 15382. A project may have a significant effect on the environment if there is a reasonable probability that it will result in a significant impact. *No Oil, supra,* *13* Cal.App.3d at p. 83 fn. 16; see *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 309 (hereafter, "*Sundstrom*"). If any aspect of the project may result in a significant impact on the environment, an EIR must be prepared even if the overall effect of the project is beneficial. CEQA Guidelines, § 15063, subd. (b)(1); see *County Sanitation Dist. No. 2 v. County of Kern* (2005) 127 Cal.App.4th 1544, 1580.

This standard sets a "low threshold" for preparation of an EIR. *Consolidated Irrigation Dist. v. City of Selma* (2012) 204 Cal.App.4th 187, 207; *Nelson v. County of Kern* (2010) 190 Cal.App.4th 252; *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 928; *Bowman v. City of Berkeley* (2004) 122 Cal.App.4th 572, 580; *Citizen Action to Serve All Students v. Thornley* (1990) 222 Cal.App.3d 748, 754; *Sundstrom, supra,* 202 Cal.App.3d at p. 310; *No Oil, supra,* 13 Cal.App.3d at p. 84; *County Sanitation, supra,* 127 Cal.App.4th at p. 1579. If substantial evidence in the record supports a fair argument that the project may have a significant environmental effect, the lead agency must prepare an EIR even if other substantial evidence before it indicates the project will 6.8
have no significant effect. See *Jensen, supra*, 23 Cal.App.5th at p. 886; *Clews Land & Livestock v. City of San Diego* (2017) 19 Cal.App.5th 161, 183; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150; *Brentwood Assn. for No Drilling, Inc. v. City of Los Angeles* (1982) 134 Cal.App.3d 491; *Friends of "B" St.*, 106 Cal.App.3d 988; CEQA Guidelines, § 15064, subd. (f)(1). It "requires the preparation of an EIR where there is substantial evidence that any aspect of the project, either individually or cumulatively, may cause a significant effect on the environment, regardless of whether the overall effect of the project is adverse or beneficial[.]" *County Sanitation, supra,* 127 Cal.App.4th at p. 1580 (quoting CEQA Guidelines, § 15063, subd. (b)(1)).

Evidence supporting a fair argument of a significant environmental impact triggers preparation of an EIR regardless of whether the record contains contrary evidence. *League for Protection of Oakland's Architectural and Historical Resources v. City of Oakland* (1997) 52 Cal.App.4th 896, 904-905. "Where the question is the sufficiency of the evidence to support a fair argument, deference to the agency's determination is not appropriate[.]" *County Sanitation, supra,* 127 Cal.App.4th at p. 1579 (quoting *Sierra Club v. County of Sonoma* (1992) 6 Cal.App.4th 1307, 1317-1318).

The agency or the court should not weigh expert testimony or decide on the credibility of such evidence—this is the EIR's responsibility. As stated in *Pocket Protectors v. City of Sacramento* (2004):

> Unlike the situation where an EIR has been prepared, neither the lead agency nor a court may "weigh" conflicting substantial evidence to determine whether an EIR must be prepared in the first instance. Guidelines section 15064, subdivision (f)(1) provides in pertinent part: if a lead agency is presented with a fair argument that a project may have a significant effect on the environment, the lead agency shall prepare an EIR even though it may also be presented with other substantial evidence that the project will not have a significant effect. Thus, as *Claremont* itself recognized, [c]onsideration is not to be given contrary evidence supporting the preparation of a negative declaration.

124 Cal.App.4th 903, 935 (internal citations and quotations omitted).

In cases where it is not clear whether there is substantial evidence of significant environmental impacts, CEQA mandates erring on the side of a "preference for resolving doubts in favor of environmental review." *Mejia v. City of Los Angeles* (2005) 130 Cal.App.4th 322, 332 "The foremost principle under CEQA is that the Legislature intended the act to be interpreted in such manner as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language. *Friends of Mammoth v. Bd. of Supervisors* (1972) 8 Cal.3d 247, 259. **6.8**

Further, it is the duty of the lead agency, not the public, to conduct the proper environmental studies. "The agency should not be allowed to hide behind its own failure to gather relevant data." *Sundstrom, supra,* 202 Cal.App.3d at p. 311. "Deficiencies in the record may actually enlarge the scope of fair argument by lending a logical plausibility to a wider range of inferences." *Ibid*; see also *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1382 (lack of study enlarges the scope of the fair argument which may be made based on the limited facts in the record).

Thus, refusal to complete recommended studies lowers the already low threshold to establish a fair argument. The court may not exercise its independent judgment on the omitted material by determining whether the ultimate decision of the lead agency would have been affected had the law been followed. *Environmental Protection Information Center v. Cal. Dept. of Forestry* (2008) 44 Cal.4th 459, 486 (internal citations and quotations omitted). The remedy for this deficiency would be for the trial court to issue a writ of mandate. *Ibid.*

While the courts review an EIR using an 'abuse of discretion' standard, the reviewing court is not to *uncritically* rely on every study or analysis presented by a project proponent in support of its position. *Berkeley Keep Jets*, *supra*, 91 Cal.App.4th at p. 1355 (quoting *Laurel Heights, supra,* 47 Cal.3d at pp. 391, 409 fn. 12) (internal quotations omitted). A clearly inadequate or unsupported study is entitled to no judicial deference. *Ibid*. Drawing this line and determining whether the EIR complies with CEQA's information disclosure requirements presents a question of law subject to independent review by the courts. *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 515; *Madera Oversight Coalition, Inc. v. County of Madera* (2011) 199 Cal.App.4th 48, 102, 131. As the First District Court of Appeal has previously stated, prejudicial abuse of discretion occurs if the failure to include relevant information precludes informed decision-making and informed public participation, thereby thwarting the statutory goals of the EIR process. *Berkeley Keep Jets, supra*, 91 Cal.App.4th at p. 1355 (internal quotations omitted). 6.8

Both the review for failure to follow CEQA's procedures and the fair argument test are questions of law, thus, the de novo standard of review applies. *Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 435. Whether the agency's record contains substantial evidence that would support a fair argument that the project may have a significant effect on the environment is treated as a question of law. *Consolidated Irrigation Dist.*, *supra*, 204 Cal.App.4th at p. 207; Kostka and Zischke, Practice Under the Environmental Quality Act (2017, 2d ed.) at § 6.76.

III. THE DEIR IS INADEQUATE UNDER CEQA

A. The DEIR Fails to Support Its Findings with Substantial Evidence

When new information is brought to light showing that an impact previously discussed in the DEIR but found to be insignificant with or without mitigation in the DEIR's analysis has the potential for a significant environmental impact supported by substantial evidence, the DEIR must consider and resolve the conflict in the evidence. 6.9
See *Visalia Retail, L.P. v. City of Visalia* (2018) 20 Cal. App. 5th 1, 13, 17; see also *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal. App. 4th 1099, 1109. While a lead agency has discretion to formulate standards for determining significance and the need for mitigation measures—the choice of any standards or thresholds of significance must be "based to the extent possible on scientific and factual data and an exercise of reasoned judgment based on substantial evidence. CEQA Guidelines § 15064(b); *Cleveland Nat'l Forest Found. v. San Diego Ass'n of Gov'ts*

(2017) 3 Cal. App. 5th 497, 515; *Mission Bay Alliance v. Office of Community Inv. & Infrastructure* (2016) 6 Cal. App. 5th 160, 206. And when there is evidence that an impact could be significant, an EIR cannot adopt a contrary finding without providing an adequate explanation along with supporting evidence. *East Sacramento Partnership for a Livable City v. City of Sacramento* (2016) 5 Cal. App. 5th 281, 302.

In addition, a determination that regulatory compliance will be sufficient to prevent significant adverse impacts must be based on a project-specific analysis of potential impacts and the effect of regulatory compliance. In *Californians for Alternatives to Toxics v. Department of Food & Agric.* (2005) 136 Cal. App. 4th 1, the court set aside an EIR for a statewide crop disease control plan because it did not include an evaluation of the risks to the environment and human health from the proposed program but simply presumed that no adverse impacts would occur from use of pesticides in accordance with the registration and labeling program of the California Department of Pesticide Regulation. *See also Ebbetts Pass Forest Watch v Department of Forestry & Fire Protection* (2008) 43 Cal. App. 4th 936, 956 (fact that Department of Pesticide Regulation had assessed environmental effects of certain herbicides in general did not excuse failure to assess effects of their use for specific timber harvesting project). **6.9**

1. The Project's Initial Study Omits Critical Supporting Information Regarding the Project's Energy Use Impacts, Fails to Adopt a Correct Threshold of Significance, and Improperly Finds that the Project's Energy Use Impacts Would Be Less Than Significant

Environmental documents must provide technical details, not merely conclusory findings, to support their determinations. [A]n EIR shall include summarized technical data, maps, plot plans, diagrams, and similar relevant information sufficient to permit full assessment of significant environmental impacts by reviewing agencies and members of the public. CEQA Guidelines § 15147; *San Franciscans for Reasonable Growth v. City & County of San Francisco* (1987) 193 Cal.App.3d 1544. 1549 ("All technical data, however, need not be included in the body of report, but may be relegated to appendices [citation omitted] or may be contained in separate source documents which are not formally a part of the document."). An EIR shall cite all documents used in its preparation . . . ." CEQA Guidelines § 15148. An environmental document may incorporate by reference another document so long as the document is made available for inspection to the public. CEQA Guidelines § 15150. **6.10**

Here, the Project's Initial Study (Appendix A to DEIR) concludes that the Project's energy use impacts will be less than significant and therefore no mitigation is required. See Appendix A to DEIR, pp. 59-65. However, the City premises this determination regarding the threshold of significance on faulty analysis whereby it compares the Project's anticipated net increase in energy uses to the estimated energy uses of all of Alameda County. See Appendix A to DEIR at p. 59. The City then applies this improper underlying assumption in making the determination that the proposed Project's anticipated energy uses will have no significant energy use impacts. *Id.*

As such, the EIR fails to provide substantial evidence to support utilizing the estimated energy use of the entirety of Alameda County as a threshold of significance. Thresholds of significance are "identifiable, quantitative, qualitative or performance level of a particular environmental effect." (CEQA Guidelines 15064.7.) While a lead agency has discretion to set thresholds of significance to determine whether an adverse environmental impact should be classified as "significant" or "less than significant", a lead agency's choice of an appropriate threshold must be based upon scientific and factual data to the extent possible and supported by substantial evidence *Mission Bay Alliance v. Office of Community Inv. & Infrastructure* (2016) 6 Cal.App.5th 160, 206*;* CEQA Guidelines § 15064.) When there is evidence that an impact may be significant, an EIR may not find the impact to be less than significant without an adequate explanation and supporting evidence. (*East Sacramento Partnership for a Livable City v. City of Sacramento* (2016) 5 Cal. App.5th 281, 300 – 02.) A threshold of significance may not be "impermissibly lenient." (*Endangered Habitats League, Inc. v. County of Orange* (2005) 131 Cal.App.5th 777, 791.) **6.11**

Here, comparing the Project's anticipated energy use impacts to the energy use of all of Alameda County is unjustified. The more pertinent, legally appropriate, and proportional analysis in assessing the Project's energy use impacts would be for the DEIR to consider the percentage increase in energy use that the Project presents compared to the current, existing energy uses within the Project site. Moreover, the DEIR should analyze and present the Project's proportional contribution to the City's overall energy use, which it also fails to do. **6.12**

The foregoing statistical calculations, and the City's demonstrated lack of analysis of them, amounts to <u>significant new information</u> associated with the Project's energy use impacts. This analysis must be performed for the City to properly assess the Project's **6.13** anticipated energy use impacts and to thereby determine whether implementation of mitigation measures is warranted. 6.13

As set forth in *Sundstrom*, on this issue, the City "should not be allowed to hide behind its own failure to gather relevant data." 202 Cal.App.3d at p. 311. The City's selection of energy use for all Alameda County as the basis for comparison of the Project's anticipated energy uses is without justification, and is therefore arbitrary and capricious. This inadequate study conducted by the City on this issue will be entitled to no judicial deference in any CEQA challenge brought against the Project's DEIR/FEIR. See *Laurel Heights, supra*, 47 Cal.3d at pp. 391, 409 fn. 12) (internal quotations omitted). 6.14

Additionally, the Initial Study admits that Project would utilize natural gas for heating purposes. Appendix A to DEIR, p. 62. Meanwhile, the Bay Area Air Quality Management District's ("BAAQMD") 2022 *CEQA Thresholds for Evaluating the Significance of Climate Impacts From Land Use Projects and Plans* guidance document (which the City has adopted) provides that inclusion of natural gas plumbing and/or appliances in new construction gives rise to potentially significant impacts with regard to a project's greenhouse gas emissions. See BAAQMD 2022 CEQA Guidelines, Ch. 6, Sec. 6.2.1 – Land Use Project Design Elements, pp. 6-3 – 6-4. To that end, the installation and use of natural gas for heating purposes at the Project will also arguably result in inefficient consumption of energy by the Project during its operation (i.e., a potentially significant energy impact). 6.15

Based on the foregoing, and in spite of the conclusions set forth in the DEIR, there is substantial evidence of the potential for the Project's energy use to present a significant environmental impact. As such, the DEIR must, at a minimum, be revised and recirculated consider and resolve this conflict in the evidence. See *Visalia Retail, supra,* 20 Cal. App. 5th at 17; see also *Amador Waterways, supra,* (2004) 116 Cal. App. 4th at 1109.

Furthermore, and as discussed below in connection with the Project's Greenhouse Gas Emissions impacts, there are a litany of additional mitigation measures that could be incorporated in the Project in order to curb its GHG emissions impacts, many of which would also reduce the Project's Energy Use (and Air Quality) impacts as well. Incorporating the energy use mitigation measures proposed below is feasible and justified for the Project. The DEIR's failure to do so, in conjunction with its faulty energy use impact analysis, violates CEQA. 6.16

2. *The DEIR Improperly Fails to Deploy Mitigation Measures for the Project's Greenhouse Gas Emissions Impacts*

Similar to the deficiencies identified above regarding the DEIR's faulty analysis of the Project's projected energy use, the DEIR fails to properly analyze and mitigate the impacts associated with the Project's projected greenhouse gas ("GHG") emissions. Indeed, despite concluding that the Project will lead to significant and unavoidable GHG impacts in operation, the DEIR does not supply any estimated calculations of the GHG emissions that the Project will produce, either in the construction phase or the operation phase. Further, based on the appendices to the DEIR, no GHG impact technical study for the Project has been conducted. Thus, the DEIR provides no demonstrable analysis of the threshold of significance applicable to the Project's increase in GHG emissions. Rather, the EIR arbitrarily and summarily concludes that the Project's GHG impacts in the operation are significant and unavoidable (and less than significant in the construction phase), and that no mitigation measures are feasible. 6.17 6.18 6.19

As stated in the Office of Planning Research's ("**OPR**") technical advisory in 2018:

> VMT and Greenhouse Gas Emissions Reduction. Senate Bill 32 (Pavley, 2016) requires California to reduce greenhouse gas (GHG) emissions 40 percent below 1990 levels by 2030, and Executive Order B-16-12 provides a target of 80 percent below 1990 emissions levels for the transportation sector by 2050. 6.20

Despite the Project's clear GHG emissions impact in direct contravention of SB 32's GHG reduction goals, the DEIR draws the conclusion that the Project's GHG impacts are significant and cannot be mitigated because of the 9th Circuit's recent decision in *California Restaurant Association v. City of Berkeley*. However, the DEIR makes no effort to otherwise reduce the Project's GHG impacts through other specific project design features aimed at reducing GHG emissions. In this regard, the DEIR mistakes a federal court ruling concerning federal preemption of natural gas supply regulations as grounds to excuse the City from the CEQA requirement of endeavoring to ensure that the Project's otherwise significant and unavoidable GHG emissions impacts are reduced to the maximum extent feasible. 6.21

Moreover, the Project is not consistent with the CARB 2022 Scoping Plan. Indeed, the first action item in the Scoping Plan is reduce GHG emissions "40% below 1990 6.22

levels by 2030."[6] The CARB Scoping Plan also sets forth the action item that new residential and commercial buildings will have "[a]ll electric appliances beginning 2026 (residential) and 2029 (commercial), contributing to 6 million heat pumps installed statewide by 2030."[7] 6.22

Despite the clear path presented by the CARB Scoping Plan for reducing GHG emissions, the DEIR declines to hold the Project to that standard, and instead deflects its responsibility to identify and mitigate GHG emissions impacts pursuant to CEQA's mandate.

It is the City's obligation, as lead agency, to ensure that the Project's environmental impacts have first been properly analyzed and then mitigated to a less than significant level wherever possible. Local 713 submits that the Project's implementation of the additional potential mitigation measures set forth below (where applicable), as delineated by the California Air Pollution Control Officers Association's *Quantifying Greenhouse Gas Mitigation Measures*, would contribute toward the goal of reducing the Project's GHG emission impacts to the maximum extent possible:

6.23

Energy						
Category	Measure Number	Strategy	BMP	Grouped With #	Range of Effectiveness	
					Percent Reduction in GHG Emissions	Basis
Building Energy Use	BE-1	Buildings exceed Title 24 Building Envelope Energy Efficiency Standards by X% (X is equal to the percentage improvement selected for the project			For a 10% improvement over 2008 Title 24: Non-Residential electricity use: 0.2-5.5%; natural gas use: 0.7-10% Residential electricity use: 0.3-2.6%; natural gas use: 7.5-9.1%	
Building Energy Use	BE-2	Install Programmable Thermostat Timers	x		BMP	
Building Energy Use	BE-3	Obtain Third-party HVAC Commissioning and Verification of Energy Savings	x	BE-1	BMP	
Building Energy Use	BE-4	Install Energy Efficient Appliances			Residential building: 2-4% Grocery Stores: 17-22%	Appliance Electricity Use
Building Energy Use	BE-5	Install Energy Efficient Boilers			1.2-18.4%	Fuel Use

[6] California Air Resources Board 2022 Scoping Plan at p. 72; https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf
[7] *Id.* at p. 75

Alternative Energy Generation	AE-1	Establish Onsite Renewable Energy Systems-Generic			0-100%	
	AE-2	Establish Onsite Renewable Energy Systems-Solar Power			0-100%	
	AE-3	Establish Onsite Renewable Energy Systems-Wind Power			0-100%	
	AE-4	Utilize a Combined Heat and Power System			0-46%	
	AE-5	Establish Methane Recovery in Landfills			73-77%	
	AE-6	Establish Methane Recovery in Wastewater Treatment Plants			95-97%	
Lighting	LE-1	Install Higher Efficacy Public Street and Area Lighting			16-40%	Outdoor Lighting Electricity Use
	LE-2	Limit Outdoor Lighting Requirements	x		BMP	
	LE-3	Replace Traffic Lights with LED Traffic Lights			90%	Traffic Light Electricity Use

6.23

Transportation						
Category	Measure Number	Strategy	BMP	Grouped With #	Range of Effectiveness	
					Percent Reduction in GHG Emissions	Basis
Land Use / Location	LUT-1	Increase Density			1.5-30.0%	VMT
	LUT-2	Increase Location Efficiency			10-65%	VMT
	LUT-3	Increase Diversity of Urban and Suburban Developments (Mixed Use)			9-30%	VMT
	LUT-4	Incr. Destination Accessibility			6.7-20%	VMT
	LUT-5	Increase Transit Accessibility			0.5-24.6%	VMT
	LUT-6	Integrate Affordable and Below Market Rate Housing			0.04-1.20%	VMT
	LUT-7	Orient Project Toward Non-Auto Corridor			NA	
	LUT-8	Locate Project near Bike Path/Bike Lane			NA	
	LUT-9	Improve Design of Development			3.0-21.3%	VMT

Neighborhood / Site Design	SDT-1	Provide Pedestrian Network Improvements			0-2%	VMT
	SDT-2	Traffic Calming Measures			0.25-1.00%	VMT
	SDT-3	Implement a Neighborhood Electric Vehicle (NEV) Network			0.5-12.7%	VMT
	SDT-4	Urban Non-Motorized Zones		SDT-1	NA	
	SDT-5	Incorporate Bike Lane Street Design (on-site)		LUT-9	NA	
	SDT-6	Provide Bike Parking in Non-Residential Projects		LUT-9	NA	
	SDT-7	Provide Bike Parking in Multi-Unit Residential Projects		LUT-9	NA	
	SDT-8	Provide EV Parking		SDT-3	NA	
	SDT-9	Dedicate Land for Bike Trails		LUT-9	NA	
Parking Policy / Pricing	PDT-1	Limit Parking Supply			5-12.5%	
	PDT-2	Unbundle Parking Costs from Property Cost			2.6-13%	
	PDT-3	Implement Market Price Public Parking (On-Street)			2.8-5.5%	
	PDT-4	Require Residential Area Parking Permits		PDT-1, 2 & 3	NA	

6.23

Trip Reduction Programs	TRT-1	Implement Voluntary CTR Programs			1.0-6.2%	Commute VMT
	TRT-2	Implement Mandatory CTR Programs – Required Implementation/Monitoring			4.2-21.0%	Commute VMT
	TRT-3	Provide Ride-Sharing Programs			1-15%	Commute VMT
	TRT-4	Implement Subsidized or Discounted Transit Prog.			0.3-20.0%	Commute VMT
	TRT-5	Provide End of Trip Facilities		TRT-1, 2 & 3	NA	
	TRT-6	Telecommuting and Alternative Work Schedules			0.07-5.50%	Commute VMT
	TRT-7	Implement Commute Trip Reduction Marketing			0.8-4.0%	Commute VMT
	TRT-8	Implement Preferential Parking Permit Program		TRT-1, 2 & 3	NA	
	TRT-9	Implement Car-Sharing Program			0.4-0.7%	VMT
	TRT-10	Implement School Pool Program			7.2-15.8%	School VMT

	TRT-11	Provide Employer-Sponsored Vanpool/Shuttle			0.3-13.4%	Commute VMT
	TRT-12	Implement Bike-Sharing Program		SDT-5, LUT-9	NA	
	TRT-13	Implement School Bus Program			38-63%	School VMT
	TRT-14	Price Workplace Parking			0.1-19.7%	Commute VMT
	TRT-15	Implement Employee Parking "Cash-Out"			0.6-7.7%	Commute VMT
Transit System Improvements	TST-1	Provide a Bus Rapid Transit System			0.02-3.2%	VMT
	TST-2	Implement Transit Access Improvements		TST-3, TST-4	NA	
	TST-3	Expand Transit Network			0.1-8.2%	VMT
	TST-4	Increase Transit Service Frequency/Speed			0.02-2.5%	VMT
	TST-5	Provide Bike Parking Near Transit		TST-3, TST-4	NA	
	TST-6	Provide Local Shuttles		TST-3, TST-4	NA	
Road Pricing / Management	RPT-1	Implement Area or Cordon Pricing			7.9-22.0%	VMT
	RPT-2	Improve Traffic Flow			0-45%	VMT
	RPT-3	Require Project Contributions to Transportation Infrastructure Improvement Projects		RPT-2, TST-1 to 6	NA	
	RPT-4	Install Park-and-Ride Lots		RPT-1, TRT-11, TRT-3, TST-1 to 6	NA	
Vehicles	VT-1	Electrify Loading Docks and/or Require Idling-Reduction Systems			26-71%	Truck Idling Time
	VT-2	Utilize Alternative Fueled Vehicles			Varies	
	VT-3	Utilize Electric or Hybrid Vehicles			0.4-20.3%	Fuel Use

6.23

Water						
Category	Measure Number	Strategy	BMP	Grouped With #	Range of Effectiveness	
					Percent Reduction in GHG Emissions	Basis
Water Supply	WSW-1	Use Reclaimed Water			up to 40% for Northern Californiaup to 81% for Southern California	Outdoor Water Use
	WSW-2	Use Gray Water			0-100%	Outdoor Water Use
	WSW-3	Use Locally-Sourced Water Supply			0-60% for Northern and Central California; 11-75% for Southern California	Indoor and Outdoor Water Use
Water Use	WUW-1	Install Low-Flow Water Fixtures.			Residential: 20% Non-Residential: 17-31%	Indoor Water Use
	WUW-2	Adopt a Water Conservation Strategy.			varies	
	WUW-3	Design Water-Efficient Landscapes			0-70%	Outdoor Water Use
	WUW-4	Use Water-Efficient Landscape Irrigation Systems			6.1%	Outdoor Water Use
	WUW-5	Reduce Turf in Landscapes and Lawns			varies	
	WUW-6	Plant Native or Drought-Resistant Trees and Vegetation			BMP	

6.23

Area Landscaping						
Category	Measure Number	Strategy	BMP	Grouped With #	Range of Effectiveness	
					Percent Reduction in GHG Emissions	Basis
Area Landscaping	A-1	Prohibit Gas Powered Landscape Equipment.			LADWP: 2.5-46.5% PG&E: 64.1-80.3% SCE: 49.5-72.0% SDGE: 38.5-66.3% SMUD: 56.3-76.0%	Fuel Use
	A-2	Implement Lawnmower Exchange Program			BMP	
	A-3	Electric Yard Equipment Compatibility		A-1 or A-2	BMP	

Solid Waste						
Category	Measure Number	Strategy	BMP	Grouped With #	Range of Effectiveness	
					Percent Reduction in GHG Emissions	Basis
Solid Waste	SW-1	Institute or Extend Recycling and Composting Services			BMP	
	SW-2	Recycle Demolished Construction Material			BMP	

Vegetation						
Category	Measure Number	Strategy	BMP	Grouped With #	Range of Effectiveness	
					Percent Reduction in GHG Emissions	Basis
Vegetation	V-1	Urban Tree Planting		GP-4	varies	
	V-2	Create new vegetated open space.			varies	

6.23

Construction						
Category	Measure Number	Strategy	BMP	Grouped With #	Range of Effectiveness	
					Percent Reduction in GHG Emissions	Basis
Construction	C-1	Use Alternative Fuels for Construction Equipment			0-22%	Fuel Use
	C-2	Use Electric and Hybrid Construction Equipment			2.5-80%	Fuel Use
	C-3	Limit Construction Equipment Idling beyond Regulation Requirements			varies	
	C-4	Institute a Heavy-Duty Off-Road Vehicle Plan		Any C	BMP	
	C-5	Implement a Vehicle Inventory Tracking System		Any C	BMP	

Miscellaneous						
Category	Measure Number	Strategy	BMP	Grouped With #	Range of Effectiveness	
					Percent Reduction in GHG Emissions	Basis
Miscellaneous	Misc-1	Establish a Carbon Sequestration Project			varies	
	Misc-2	Establish Off-Site Mitigation			varies	
	Misc-3	Use Local and Sustainable Building Materials	x		BMP	
	Misc-4	Require Best Management Practices in Agriculture and Animal Operations	x		BMP	
	Misc-5	Require Environmentally Responsible Purchasing	x		BMP	
	Misc-6	Implement an Innovative Strategy for GHG Mitigation	x		BMP	

6.23

General Plan Strategies						
Category	Measure Number	Strategy	BMP	Grouped With #	Range of Effectiveness	
					Percent Reduction in GHG Emissions	Basis
General Plans	GP-1	Fund Incentives for Energy Efficiency	x		BMP	
	GP-2	Establish a Local Farmer's Market	x		BMP	
	GP-3	Establish Community Gardens	x		BMP	
	GP-4	Plant Urban Shade Trees	x	V-1	BMP	
	GP-5	Implement Strategies to Reduce Urban Heat-Island Effect	x		BMP	

(See *Quantifying Greenhouse Gas Mitigation Measures*, Tables 6-1 to 6-9, California Air Pollution Control Officers Association (CAPCOA), August 2010.[8])

It is entirely feasible for the EIR to incorporate a substantial proportion of the foregoing measures for the Project as mandatory forms of mitigation against the

[8] Available at: http://www.aqmd.gov/docs/default-source/ceqa/handbook/capcoa-quantifying-greenhouse-gas-mitigation-measures.pdf

Project's potentially significant greenhouse gas impacts (as well as energy use and air quality impacts). The EIR cannot permissibly deflect its obligations to mitigate such impacts merely by hiding behind the 9th Circuit's ruling in *California Restaurant Association v. City of Berkeley*. More is required, and as currently constituted, the DEIR's improper analysis and lack of appropriate mitigation on GHG impacts violates CEQA. 6.23

3. The DEIR's Biological Resources Mitigation Measure Is Insufficient.

The Project's Initial Study and DEIR notes that up to 5 city street trees may require removal at the north edge of the Project site at the terminus of Hester Street. Appendix A to DEIR, Initial Study, p. 51. In order to mitigate the Project's potentially significant impacts to nesting birds in said street trees, the Initial Study imposes mitigation measure BIO-1, which requires, among other things, that pre-construction nesting surveys be conducted during the nesting season. *Id.* at p. 52. However, the mitigation measure defines the nesting period as February-September, contrary to the California Department of Fish and Wildlife's ("**CDFW**") finding that **raptor** nesting may commence before and/or after this timeframe.[9] 6.24

Further investigation of the information contained on the CDFW's "California Outdoors Q&A" webpage reveals that the boundaries of bird nesting season in California are broad and variable: "[N]esting season can vary based on location and species of bird, and in some parts of the state, birds nest year-round."[10]

This added qualification by CDFW regarding bird nesting season is consistent with, and underscores, CDFW's separate finding that raptor nesting in the Project's geographic region can and does occur outside the more general bird nesting period of February-September sought by the DEIR in BIO-1. Moreover, CDFW's collective findings on this issue confirm the inadequacy of the City's proposed mitigation measure for the Project.

[9] "…[S]ome species of raptors (e g. owls, hawks, etc.) may commence nesting activities in January." See CDFW November 18, 2021 letter to City of Adelanto, available at https://files.ceqanet.opr.ca.gov/273819-1/attachment/zo76RgD7dUdj5BLJTEhEMdf74g6f100RrKiWBQSquhFFe5l0X53rLsbLSGMPRXgXM4AaYnJSTfZB6JpY0

[10] See CDFW California Outdoors Q&A – Nesting Birds https://wildlife.ca.gov/COQA/ArticlePage/2/tag/conflict#gsc.tab=0

Accordingly, the nesting period and survey plan set forth in the MM-BIO-1 must, at a minimum, be revised to account for CDFW's findings pertaining to the raptor nesting season within the Project's geographic region. Absent such revision, the proposed mitigation measure and, by extension, the DEIR will be in direct violation of the CEQA Guidelines. 6.24

4. The DEIR's Noise/Vibration Mitigation Measures Are Inadequate and Fail to Incorporate Requisite Analysis

The Project's DEIR finds that construction of the Project will result in a potentially significant impact with respect to groundborne vibration. Specifically, the DEIR indicates that the Project's construction would generate groundborne vibration that would exceed thresholds of structural damage at nearby existing buildings. DEIR at p. 4.3-18. In an effort to address these potential significant impacts, the DEIR implements Mitigation Measure NOI-2, which states as follows:

> **Static Roller Requirement.** The project applicant and/or its construction contractors shall use of a static roller in lieu of a vibratory roller for paving activities within 15 feet of the existing off-site buildings to the north and west of the project site. City staff shall verify that this requirement is incorporated into construction plans prior to issuance of a building permit and verified in the field. 6.25

DEIR at p. 4.3-20.

However, the calculations associated with MM-NOI-2 do not include any analysis of the impacts of vibratory roller use between 10 feet and 25 feet of distance from existing off-site buildings. See Appendix F to DEIR at pp. 3-5, Table 1. Meanwhile, MM-NOI-2 only requires use of a static (non-vibratory) roller *within 15 feet* of neighboring sensitive receptors. Thus, the DEIR's analysis with regard to MM-NOI-2 is inadequate to support the measure, in that the DEIR does not clearly indicate that the vibration caused by use a vibratory roller starting at 15 feet of distance from neighboring structures would be less than the prescribed threshold of 0.5 in/sec PPV for vibration-induced structural damage. Moreover, the DEIR also does not otherwise provide a clear delineation for the minimum safe distance for use of a vibratory roller in the context of proximity to off-site structures.

Further analysis is required to demonstrate that no significant impact will occur to neighboring industrial structures via use of vibratory roller starting at 15 feet distance away and greater. Accordingly, the DEIR must be revised and recirculated to reflect this appropriate analysis, and MM-NOI-2 should be adjusted accordingly, if necessary, 6.25 in order to protect neighboring structures from damage.

IV. CONCLUSION

Based on the foregoing concerns, the City should require revision and recirculation of the DEIR for the Project pursuant to CEQA. Absent doing so, the DEIR in its 6.26 current form directly violates CEQA in multiple respects. If the City should have any questions or concerns, please do not hesitate to contact this office.

Sincerely,

Jeremy Herwitt
Attorneys for Carpenters Local 713

<u>Attached</u>:

March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling (**Exhibit A**);

Air Quality and GHG Expert Paul Rosenfeld CV (**Exhibit B**);

Air Quality and GHG Expert Matt Hagemann CV (**Exhibit C**)

EXHIBIT A

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

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March 8, 2021

Mitchell M. Tsai
155 South El Molino, Suite 104
Pasadena, CA 91101

Subject: Local Hire Requirements and Considerations for Greenhouse Gas Modeling

Dear Mr. Tsai,

Soil Water Air Protection Enterprise ("SWAPE") is pleased to provide the following draft technical report explaining the significance of worker trips required for construction of land use development projects with respect to the estimation of greenhouse gas ("GHG") emissions. The report will also discuss the potential for local hire requirements to reduce the length of worker trips, and consequently, reduced or mitigate the potential GHG impacts.

Worker Trips and Greenhouse Gas Calculations

The California Emissions Estimator Model ("CalEEMod") is a "statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects."[1] CalEEMod quantifies construction-related emissions associated with land use projects resulting from off-road construction equipment; on-road mobile equipment associated with workers, vendors, and hauling; fugitive dust associated with grading, demolition, truck loading, and on-road vehicles traveling along paved and unpaved roads; and architectural coating activities; and paving.[2]

The number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[3]

[1] "California Emissions Estimator Model." CAPCOA, 2017*, available at:* http://www.aqmd.gov/caleemod/home.
[2] "California Emissions Estimator Model." CAPCOA, 2017*, available at:* http://www.aqmd.gov/caleemod/home.
[3] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.

Specifically, the number and length of vehicle trips is utilized to estimate the vehicle miles travelled ("VMT") associated with construction. Then, utilizing vehicle-class specific EMFAC 2014 emission factors, CalEEMod calculates the vehicle exhaust, evaporative, and dust emissions resulting from construction-related VMT, including personal vehicles for worker commuting.[4]

Specifically, in order to calculate VMT, CalEEMod multiplies the average daily trip rate by the average overall trip length (see excerpt below):

"$VMT_d = \Sigma(\text{Average Daily Trip Rate}_i * \text{Average Overall Trip Length}_i)_n$

Where:

n = Number of land uses being modeled."[5]

Furthermore, to calculate the on-road emissions associated with worker trips, CalEEMod utilizes the following equation (see excerpt below):

"$Emissions_{pollutant} = VMT * EF_{running,pollutant}$

Where:

$Emissions_{pollutant}$ = emissions from vehicle running for each pollutant

VMT = vehicle miles traveled

$EF_{running,pollutant}$ = emission factor for running emissions."[6]

Thus, there is a direct relationship between trip length and VMT, as well as a direct relationship between VMT and vehicle running emissions. In other words, when the trip length is increased, the VMT and vehicle running emissions increase as a result. Thus, vehicle running emissions can be reduced by decreasing the average overall trip length, by way of a local hire requirement or otherwise.

Default Worker Trip Parameters and Potential Local Hire Requirements

As previously discussed, the number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[7] In order to understand how local hire requirements and associated worker trip length reductions impact GHG emissions calculations, it is important to consider the CalEEMod default worker trip parameters. CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act ("CEQA") requires that such changes be justified by substantial evidence.[8] The default number of construction-related worker trips is calculated by multiplying the

[4] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14-15.
[5] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 23.
[6] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[7] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[8] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 1, 9.

number of pieces of equipment for all phases by 1.25, with the exception of worker trips required for the building construction and architectural coating phases.[9] Furthermore, the worker trip vehicle class is a 50/25/25 percent mix of light duty autos, light duty truck class 1 and light duty truck class 2, respectively."[10] Finally, the default worker trip length is consistent with the length of the operational home-to-work vehicle trips.[11] The operational home-to-work vehicle trip lengths are:

> "[B]ased on the *location* and *urbanization* selected on the project characteristic screen. These values were *supplied by the air districts or use a default average for the state*. Each district (or county) also assigns trip lengths for urban and rural settings" (emphasis added). [12]

Thus, the default worker trip length is based on the location and urbanization level selected by the User when modeling emissions. The below table shows the CalEEMod default rural and urban worker trip lengths by air basin (see excerpt below and Attachment A).[13]

Worker Trip Length by Air Basin

Air Basin	Rural (miles)	Urban (miles)
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	**16.47**	**11.17**
Minimum	**10.80**	**10.80**
Maximum	**19.80**	**14.70**
Range	**9.00**	**3.90**

[9] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[10] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[11] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14.
[12] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 21.
[13] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-84 – D-86.

As demonstrated above, default rural worker trip lengths for air basins in California vary from 10.8- to 19.8-miles, with an average of 16.47 miles. Furthermore, default urban worker trip lengths vary from 10.8- to 14.7-miles, with an average of 11.17 miles. Thus, while default worker trip lengths vary by location, default urban worker trip lengths tend to be shorter in length. Based on these trends evident in the CalEEMod default worker trip lengths, we can reasonably assume that the efficacy of a local hire requirement is especially dependent upon the urbanization of the project site, as well as the project location.

Practical Application of a Local Hire Requirement and Associated Impact

To provide an example of the potential impact of a local hire provision on construction-related GHG emissions, we estimated the significance of a local hire provision for the Village South Specific Plan ("Project") located in the City of Claremont ("City"). The Project proposed to construct 1,000 residential units, 100,000-SF of retail space, 45,000-SF of office space, as well as a 50-room hotel, on the 24-acre site. The Project location is classified as Urban and lies within the Los Angeles-South Coast County. As a result, the Project has a default worker trip length of 14.7 miles.[14] In an effort to evaluate the potential for a local hire provision to reduce the Project's construction-related GHG emissions, we prepared an updated model, reducing all worker trip lengths to 10 miles (see Attachment B). Our analysis estimates that if a local hire provision with a 10-mile radius were to be implemented, the GHG emissions associated with Project construction would decrease by approximately 17% (see table below and Attachment C).

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO_2e)	3,623
Amortized Construction GHG Emissions (MT CO_2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized Construction GHG Emissions (MT CO_2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

As demonstrated above, by implementing a local hire provision requiring 10 mile worker trip lengths, the Project could reduce potential GHG emissions associated with construction worker trips. More broadly, any local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

This serves as an example of the potential impacts of local hire requirements on estimated project-level GHG emissions, though it does not indicate that local hire requirements would result in reduced construction-related GHG emission for all projects. As previously described, the significance of a local hire requirement depends on the worker trip length enforced and the default worker trip length for the project's urbanization level and location.

[14] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-85.

Disclaimer

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

Sincerely,

M Hagemann

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

Paul Rosenfeld

Paul E. Rosenfeld, Ph.D.

Location Type	Location Name	Rural H-W (miles)	Urban H-W (miles)
Air Basin	Great Basin	16.8	10.8
Air Basin	Lake County	16.8	10.8
Air Basin	Lake Tahoe	16.8	10.8
Air Basin	Mojave Desert	16.8	10.8
Air Basin	Mountain	16.8	10.8
Air Basin	North Central	17.1	12.3
Air Basin	North Coast	16.8	10.8
Air Basin	Northeast	16.8	10.8
Air Basin	Sacramento	16.8	10.8
Air Basin	Salton Sea	14.6	11
Air Basin	San Diego	16.8	10.8
Air Basin	San Francisco	10.8	10.8
Air Basin	San Joaquin	16.8	10.8
Air Basin	South Central	16.8	10.8
Air Basin	South Coast	19.8	14.7
Air District	Amador County	16.8	10.8
Air District	Antelope Valley	16.8	10.8
Air District	Bay Area AQMD	10.8	10.8
Air District	Butte County	12.54	12.54
Air District	Calaveras	16.8	10.8
Air District	Colusa County	16.8	10.8
Air District	El Dorado	16.8	10.8
Air District	Feather River	16.8	10.8
Air District	Glenn County	16.8	10.8
Air District	Great Basin	16.8	10.8
Air District	Imperial County	10.2	7.3
Air District	Kern County	16.8	10.8
Air District	Lake County	16.8	10.8
Air District	Lassen County	16.8	10.8
Air District	Mariposa	16.8	10.8
Air District	Mendocino	16.8	10.8
Air District	Modoc County	16.8	10.8
Air District	Mojave Desert	16.8	10.8
Air District	Monterey Bay	16.8	10.8
Air District	North Coast	16.8	10.8
Air District	Northern Sierra	16.8	10.8
Air District	Northern	16.8	10.8
Air District	Placer County	16.8	10.8
Air District	Sacramento	15	10

Air District	San Diego	16.8	10.8
Air District	San Joaquin	16.8	10.8
Air District	San Luis Obispo	13	13
Air District	Santa Barbara	8.3	8.3
Air District	Shasta County	16.8	10.8
Air District	Siskiyou County	16.8	10.8
Air District	South Coast	19.8	14.7
Air District	Tehama County	16.8	10.8
Air District	Tuolumne	16.8	10.8
Air District	Ventura County	16.8	10.8
Air District	Yolo/Solano	15	10
County	Alameda	10.8	10.8
County	Alpine	16.8	10.8
County	Amador	16.8	10.8
County	Butte	12.54	12.54
County	Calaveras	16.8	10.8
County	Colusa	16.8	10.8
County	Contra Costa	10.8	10.8
County	Del Norte	16.8	10.8
County	El Dorado-Lake	16.8	10.8
County	El Dorado-	16.8	10.8
County	Fresno	16.8	10.8
County	Glenn	16.8	10.8
County	Humboldt	16.8	10.8
County	Imperial	10.2	7.3
County	Inyo	16.8	10.8
County	Kern-Mojave	16.8	10.8
County	Kern-San	16.8	10.8
County	Kings	16.8	10.8
County	Lake	16.8	10.8
County	Lassen	16.8	10.8
County	Los Angeles-	16.8	10.8
County	Los Angeles-	19.8	14.7
County	Madera	16.8	10.8
County	Marin	10.8	10.8
County	Mariposa	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Merced	16.8	10.8
County	Modoc	16.8	10.8
County	Mono	16.8	10.8
County	Monterey	16.8	10.8
County	Napa	10.8	10.8

County	Nevada	16.8	10.8
County	Orange	19.8	14.7
County	Placer-Lake	16.8	10.8
County	Placer-Mountain	16.8	10.8
County	Placer-	16.8	10.8
County	Plumas	16.8	10.8
County	Riverside-	16.8	10.8
County	Riverside-	19.8	14.7
County	Riverside-Salton	14.6	11
County	Riverside-South	19.8	14.7
County	Sacramento	15	10
County	San Benito	16.8	10.8
County	San Bernardino-	16.8	10.8
County	San Bernardino-	19.8	14.7
County	San Diego	16.8	10.8
County	San Francisco	10.8	10.8
County	San Joaquin	16.8	10.8
County	San Luis Obispo	13	13
County	San Mateo	10.8	10.8
County	Santa Barbara-	8.3	8.3
County	Santa Barbara-	8.3	8.3
County	Santa Clara	10.8	10.8
County	Santa Cruz	16.8	10.8
County	Shasta	16.8	10.8
County	Sierra	16.8	10.8
County	Siskiyou	16.8	10.8
County	Solano-	15	10
County	Solano-San	16.8	10.8
County	Sonoma-North	16.8	10.8
County	Sonoma-San	10.8	10.8
County	Stanislaus	16.8	10.8
County	Sutter	16.8	10.8
County	Tehama	16.8	10.8
County	Trinity	16.8	10.8
County	Tulare	16.8	10.8
County	Tuolumne	16.8	10.8
County	Ventura	16.8	10.8
County	Yolo	15	10
County	Yuba	16.8	10.8
Statewide	Statewide	16.8	10.8

Worker Trip Length by Air Basin		
Air Basin	**Rural (miles)**	**Urban (miles)**
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	**16.47**	**11.17**
Mininum	**10.80**	**10.80**
Maximum	**19.80**	**14.70**
Range	**9.00**	**3.90**

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.2 **Precipitation Freq (Days)** 33

Climate Zone 9 **Operational Year** 2028

Utility Company Southern California Edison

CO2 Intensity (lb/MWhr) 702.44 **CH4 Intensity (lb/MWhr)** 0.029 **N2O Intensity (lb/MWhr)** 0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

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					
2021	0.1713	1.8242	1.1662	2.4000e-003	0.4169	0.0817	0.4986	0.1795	0.0754	0.2549	0.0000	213.1969	213.1969	0.0601	0.0000	214.6993
2022	0.6904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6826	1,721.6826	0.1294	0.0000	1,724.9187
2023	0.6148	3.3649	5.6747	0.0178	1.1963	0.0996	1.2959	0.3203	0.0935	0.4138	0.0000	1,627.5295	1,627.5295	0.1185	0.0000	1,630.4925
2024	4.1619	0.1335	0.2810	5.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	6.0400e-003	0.0147	0.0000	52.9078	52.9078	8.0200e-003	0.0000	53.1082
Maximum	**4.1619**	**4.1142**	**6.1625**	**0.0189**	**1.3058**	**0.1201**	**1.4259**	**0.3460**	**0.1128**	**0.4588**	**0.0000**	**1,721.6826**	**1,721.6826**	**0.1294**	**0.0000**	**1,724.9187**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1713	1.8242	1.1662	2.4000e-003	0.4169	0.0817	0.4986	0.1795	0.0754	0.2549	0.0000	213.1967	213.1967	0.0601	0.0000	214.6991
2022	0.6904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6823	1,721.6823	0.1294	0.0000	1,724.9183
2023	0.6148	3.3648	5.6747	0.0178	1.1963	0.0996	1.2959	0.3203	0.0935	0.4138	0.0000	1,627.5291	1,627.5291	0.1185	0.0000	1,630.4921
2024	4.1619	0.1335	0.2810	5.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	6.0400e-003	0.0147	0.0000	52.9077	52.9077	8.0200e-003	0.0000	53.1082
Maximum	**4.1619**	**4.1142**	**6.1625**	**0.0189**	**1.3058**	**0.1201**	**1.4259**	**0.3460**	**0.1128**	**0.4588**	**0.0000**	**1,721.6823**	**1,721.6823**	**0.1294**	**0.0000**	**1,724.9183**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**9-1-2021**	**11-30-2021**	1.4103	1.4103
2	**12-1-2021**	**2-28-2022**	1.3613	1.3613
3	**3-1-2022**	**5-31-2022**	1.1985	1.1985
4	**6-1-2022**	**8-31-2022**	1.1921	1.1921
5	**9-1-2022**	**11-30-2022**	1.1918	1.1918
6	**12-1-2022**	**2-28-2023**	1.0774	1.0774
7	**3-1-2023**	**5-31-2023**	1.0320	1.0320
8	**6-1-2023**	**8-31-2023**	1.0260	1.0260

9	**9-1-2023**	**11-30-2023**	1.0265	1.0265
10	**12-1-2023**	**2-29-2024**	2.8857	2.8857
11	**3-1-2024**	**5-31-2024**	1.6207	1.6207
		Highest	2.8857	2.8857

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	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

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	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0012**	**51.0012**	**0.0144**	**0.0000**	**51.3601**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
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	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267
Total	**2.9000e-003**	**0.0641**	**0.0233**	**2.0000e-004**	**6.4100e-003**	**2.1000e-004**	**6.6200e-003**	**1.7300e-003**	**2.0000e-004**	**1.9300e-003**	**0.0000**	**19.6816**	**19.6816**	**1.2800e-003**	**0.0000**	**19.7136**

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					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0011**	**51.0011**	**0.0144**	**0.0000**	**51.3600**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
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	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267
Total	**2.9000e-003**	**0.0641**	**0.0233**	**2.0000e-004**	**6.4100e-003**	**2.1000e-004**	**6.6200e-003**	**1.7300e-003**	**2.0000e-004**	**1.9300e-003**	**0.0000**	**19.6816**	**19.6816**	**1.2800e-003**	**0.0000**	**19.7136**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7061**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	7.7000e-004	6.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814
Total	**7.7000e-004**	**6.0000e-004**	**6.8100e-003**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.7801**	**1.7801**	**5.0000e-005**	**0.0000**	**1.7814**

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					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7060**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	7.7000e-004	6.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814
Total	**7.7000e-004**	**6.0000e-004**	**6.8100e-003**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.7801**	**1.7801**	**5.0000e-005**	**0.0000**	**1.7814**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5405**	**103.5405**	**0.0335**	**0.0000**	**104.3776**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607
Total	**1.6400e-003**	**1.2700e-003**	**0.0144**	**4.0000e-005**	**4.1600e-003**	**3.0000e-005**	**4.2000e-003**	**1.1100e-003**	**3.0000e-005**	**1.1400e-003**	**0.0000**	**3.7579**	**3.7579**	**1.1000e-004**	**0.0000**	**3.7607**

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					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5403**	**103.5403**	**0.0335**	**0.0000**	**104.3775**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607
Total	**1.6400e-003**	**1.2700e-003**	**0.0144**	**4.0000e-005**	**4.1600e-003**	**3.0000e-005**	**4.2000e-003**	**1.1100e-003**	**3.0000e-005**	**1.1400e-003**	**0.0000**	**3.7579**	**3.7579**	**1.1000e-004**	**0.0000**	**3.7607**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684
Total	**2.8000e-004**	**2.1000e-004**	**2.4400e-003**	**1.0000e-005**	**7.7000e-004**	**1.0000e-005**	**7.7000e-004**	**2.0000e-004**	**1.0000e-005**	**2.1000e-004**	**0.0000**	**0.6679**	**0.6679**	**2.0000e-005**	**0.0000**	**0.6684**

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					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684
Total	**2.8000e-004**	**2.1000e-004**	**2.4400e-003**	**1.0000e-005**	**7.7000e-004**	**1.0000e-005**	**7.7000e-004**	**2.0000e-004**	**1.0000e-005**	**2.1000e-004**	**0.0000**	**0.6679**	**0.6679**	**2.0000e-005**	**0.0000**	**0.6684**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1324**	**293.1324**	**0.0702**	**0.0000**	**294.8881**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.4088	0.3066	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2949	8.1700e-003	0.3031	0.0000	966.8117	966.8117	0.0266	0.0000	967.4773
Total	**0.4616**	**2.0027**	**3.9885**	**0.0152**	**1.2243**	**0.0121**	**1.2363**	**0.3278**	**0.0112**	**0.3390**	**0.0000**	**1,408.7952**	**1,408.7952**	**0.0530**	**0.0000**	**1,410.1208**

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	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1321**	**293.1321**	**0.0702**	**0.0000**	**294.8877**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.4088	0.3066	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2949	8.1700e-003	0.3031	0.0000	966.8117	966.8117	0.0266	0.0000	967.4773
Total	**0.4616**	**2.0027**	**3.9885**	**0.0152**	**1.2243**	**0.0121**	**1.2363**	**0.3278**	**0.0112**	**0.3390**	**0.0000**	**1,408.7952**	**1,408.7952**	**0.0530**	**0.0000**	**1,410.1208**

3.5 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	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2789**	**286.2789**	**0.0681**	**0.0000**	**287.9814**

3.5 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	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.3753	0.2708	3.1696	0.0101	1.0840	8.4100e-003	1.0924	0.2879	7.7400e-003	0.2957	0.0000	909.3439	909.3439	0.0234	0.0000	909.9291
Total	**0.4135**	**1.5218**	**3.5707**	**0.0144**	**1.1953**	**9.8700e-003**	**1.2051**	**0.3200**	**9.1400e-003**	**0.3292**	**0.0000**	**1,327.3369**	**1,327.3369**	**0.0462**	**0.0000**	**1,328.4916**

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	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0681	0.0000	287.9811
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2785**	**286.2785**	**0.0681**	**0.0000**	**287.9811**

3.5 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	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.3753	0.2708	3.1696	0.0101	1.0840	8.4100e-003	1.0924	0.2879	7.7400e-003	0.2957	0.0000	909.3439	909.3439	0.0234	0.0000	909.9291
Total	**0.4135**	**1.5218**	**3.5707**	**0.0144**	**1.1953**	**9.8700e-003**	**1.2051**	**0.3200**	**9.1400e-003**	**0.3292**	**0.0000**	**1,327.3369**	**1,327.3369**	**0.0462**	**0.0000**	**1,328.4916**

3.6 Paving - 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	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 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	0.0000	0.0000	0.0000	0.0000	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	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
Total	**3.7000e-004**	**2.7000e-004**	**3.1200e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0800e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.8963**	**0.8963**	**2.0000e-005**	**0.0000**	**0.8968**

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

3.6 Paving - 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	0.0000	0.0000	0.0000	0.0000	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	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
Total	**3.7000e-004**	**2.7000e-004**	**3.1200e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0800e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.8963**	**0.8963**	**2.0000e-005**	**0.0000**	**0.8968**

3.6 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	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 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	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4697	1.4697	4.0000e-005	0.0000	1.4706
Total	**5.9000e-004**	**4.1000e-004**	**4.9200e-003**	**2.0000e-005**	**1.8100e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.4697**	**1.4697**	**4.0000e-005**	**0.0000**	**1.4706**

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	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 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	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4697	1.4697	4.0000e-005	0.0000	1.4706
Total	**5.9000e-004**	**4.1000e-004**	**4.9200e-003**	**2.0000e-005**	**1.8100e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.4697**	**1.4697**	**4.0000e-005**	**0.0000**	**1.4706**

3.7 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	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 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	0.0101	6.9900e-003	0.0835	2.8000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558
Total	**0.0101**	**6.9900e-003**	**0.0835**	**2.8000e-004**	**0.0307**	**2.3000e-004**	**0.0309**	**8.1500e-003**	**2.2000e-004**	**8.3700e-003**	**0.0000**	**24.9407**	**24.9407**	**6.1000e-004**	**0.0000**	**24.9558**

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	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 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	0.0101	6.9900e-003	0.0835	2.8000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558
Total	**0.0101**	**6.9900e-003**	**0.0835**	**2.8000e-004**	**0.0307**	**2.3000e-004**	**0.0309**	**8.1500e-003**	**2.2000e-004**	**8.3700e-003**	**0.0000**	**24.9407**	**24.9407**	**6.1000e-004**	**0.0000**	**24.9558**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

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
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

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	2,512.646 5	2,512.646 5	0.1037	0.0215	2,521.635 6
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.646 5	2,512.646 5	0.1037	0.0215	2,521.635 6
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.426 7	1,383.426 7	0.0265	0.0254	1,391.647 8
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.426 7	1,383.426 7	0.0265	0.0254	1,391.647 8

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					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

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					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive 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	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Unmitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

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	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

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	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	585.8052	3.0183	0.0755	683.7567
Unmitigated	585.8052	3.0183	0.0755	683.7567

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	207.8079	12.2811	0.0000	514.8354
Unmitigated	207.8079	12.2811	0.0000	514.8354

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.2 **Precipitation Freq (Days)** 33

Climate Zone 9 **Operational Year** 2028

Utility Company Southern California Edison

CO2 Intensity (lb/MWhr) 702.44 **CH4 Intensity (lb/MWhr)** 0.029 **N2O Intensity (lb/MWhr)** 0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2769	46.4588	31.6840	0.0643	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,234.797 4	6,234.797 4	1.9495	0.0000	6,283.535 2
2022	5.3304	38.8967	49.5629	0.1517	9.8688	1.6366	10.7727	3.6558	1.5057	5.1615	0.0000	15,251.56 74	15,251.56 74	1.9503	0.0000	15,278.52 88
2023	4.8957	26.3317	46.7567	0.1472	9.8688	0.7794	10.6482	2.6381	0.7322	3.3702	0.0000	14,807.52 69	14,807.52 69	1.0250	0.0000	14,833.15 21
2024	237.1630	9.5575	15.1043	0.0244	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,361.398 9	2,361.398 9	0.7177	0.0000	2,379.342 1
Maximum	**237.1630**	**46.4588**	**49.5629**	**0.1517**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**15,251.56 74**	**15,251.56 74**	**1.9503**	**0.0000**	**15,278.52 88**

2.1 Overall Construction (Maximum Daily Emission)

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					
2021	4.2769	46.4588	31.6840	0.0643	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,234.7974	6,234.7974	1.9495	0.0000	6,283.5352
2022	5.3304	38.8967	49.5629	0.1517	9.8688	1.6366	10.7727	3.6558	1.5057	5.1615	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288
2023	4.8957	26.3317	46.7567	0.1472	9.8688	0.7794	10.6482	2.6381	0.7322	3.3702	0.0000	14,807.5269	14,807.5269	1.0250	0.0000	14,833.1520
2024	237.1630	9.5575	15.1043	0.0244	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,361.3989	2,361.3989	0.7177	0.0000	2,379.3421
Maximum	**237.1630**	**46.4588**	**49.5629**	**0.1517**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**15,251.5674**	**15,251.5674**	**1.9503**	**0.0000**	**15,278.5288**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

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	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.241 3	1,292.241 3	0.0877		1,294.433 7
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	**0.1916**	**4.1394**	**1.5644**	**0.0136**	**0.4346**	**0.0139**	**0.4485**	**0.1176**	**0.0133**	**0.1309**		**1,463.056 8**	**1,463.056 8**	**0.0927**		**1,465.375 0**

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					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.944 9	3,747.944 9	1.0549		3,774.317 4
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.944 9**	**3,747.944 9**	**1.0549**		**3,774.317 4**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	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	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.241 3	1,292.241 3	0.0877		1,294.433 7
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	**0.1916**	**4.1394**	**1.5644**	**0.0136**	**0.4346**	**0.0139**	**0.4485**	**0.1176**	**0.0133**	**0.1309**		**1,463.056 8**	**1,463.056 8**	**0.0927**		**1,465.375 0**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

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

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	**0.0772**	**0.0530**	**0.7250**	**2.0600e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**204.9786**	**204.9786**	**6.0400e-003**		**205.1296**

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	**0.0772**	**0.0530**	**0.7250**	**2.0600e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**204.9786**	**204.9786**	**6.0400e-003**		**205.1296**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
Total	**0.0857**	**0.0589**	**0.8056**	**2.2900e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**227.7540**	**227.7540**	**6.7100e-003**		**227.9217**

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					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
Total	**0.0857**	**0.0589**	**0.8056**	**2.2900e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**227.7540**	**227.7540**	**6.7100e-003**		**227.9217**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941
Total	**0.0803**	**0.0532**	**0.7432**	**2.2100e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**219.7425**	**219.7425**	**6.0600e-003**		**219.8941**

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					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941
Total	**0.0803**	**0.0532**	**0.7432**	**2.2100e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**219.7425**	**219.7425**	**6.0600e-003**		**219.8941**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day							lb/day			
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.548 2	3,896.548 2	0.2236		3,902.138 4
Worker	3.2162	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,800.685 7	8,800.685 7	0.2429		8,806.758 2
Total	**3.6242**	**15.3350**	**33.1995**	**0.1247**	**9.8688**	**0.0949**	**9.9637**	**2.6381**	**0.0883**	**2.7263**		**12,697.23 39**	**12,697.23 39**	**0.4665**		**12,708.89 66**

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.333 6	2,554.333 6	0.6120		2,569.632 2
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.333 6**	**2,554.333 6**	**0.6120**		**2,569.632 2**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.548 2	3,896.548 2	0.2236		3,902.138 4
Worker	3.2162	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,800.685 7	8,800.685 7	0.2429		8,806.758 2
Total	**3.6242**	**15.3350**	**33.1995**	**0.1247**	**9.8688**	**0.0949**	**9.9637**	**2.6381**	**0.0883**	**2.7263**		**12,697.23 39**	**12,697.23 39**	**0.4665**		**12,708.89 66**

3.5 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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.209 9	2,555.209 9	0.6079		2,570.406 1
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.209 9**	**2,555.209 9**	**0.6079**		**2,570.406 1**

3.5 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.876 2	3,773.876 2	0.1982		3,778.830 0
Worker	3.0203	1.9287	27.4113	0.0851	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		8,478.440 8	8,478.440 8	0.2190		8,483.916 0
Total	**3.3229**	**11.9468**	**30.5127**	**0.1203**	**9.8688**	**0.0797**	**9.9485**	**2.6381**	**0.0738**	**2.7118**		**12,252.31 70**	**12,252.31 70**	**0.4172**		**12,262.74 60**

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.209 9	2,555.209 9	0.6079		2,570.406 1
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.209 9**	**2,555.209 9**	**0.6079**		**2,570.406 1**

3.5 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.876 2	3,773.876 2	0.1982		3,778.830 0
Worker	3.0203	1.9287	27.4113	0.0851	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		8,478.440 8	8,478.440 8	0.2190		8,483.916 0
Total	**3.3229**	**11.9468**	**30.5127**	**0.1203**	**9.8688**	**0.0797**	**9.9485**	**2.6381**	**0.0738**	**2.7118**		**12,252.31 70**	**12,252.31 70**	**0.4172**		**12,262.74 60**

3.6 Paving - 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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.584 1	2,207.584 1	0.7140		2,225.433 6
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.584 1**	**2,207.584 1**	**0.7140**		**2,225.433 6**

3.6 Paving - 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748
Total	**0.0566**	**0.0361**	**0.5133**	**1.5900e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**158.7723**	**158.7723**	**4.1000e-003**		**158.8748**

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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748
Total	**0.0566**	**0.0361**	**0.5133**	**1.5900e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**158.7723**	**158.7723**	**4.1000e-003**		**158.8748**

3.6 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	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.9458
Total	**0.0535**	**0.0329**	**0.4785**	**1.5400e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**153.8517**	**153.8517**	**3.7600e-003**		**153.9458**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.9458
Total	**0.0535**	**0.0329**	**0.4785**	**1.5400e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**153.8517**	**153.8517**	**3.7600e-003**		**153.9458**

3.7 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	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5707	0.3513	5.1044	0.0165	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.085 2	1,641.085 2	0.0401		1,642.088 6
Total	**0.5707**	**0.3513**	**5.1044**	**0.0165**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,641.085 2**	**1,641.085 2**	**0.0401**		**1,642.088 6**

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	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5707	0.3513	5.1044	0.0165	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.085 2	1,641.085 2	0.0401		1,642.088 6
Total	**0.5707**	**0.3513**	**5.1044**	**0.0165**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,641.085 2**	**1,641.085 2**	**0.0401**		**1,642.088 6**

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	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

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
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

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	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7

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					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

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					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	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	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

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	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

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	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.2 **Precipitation Freq (Days)** 33

Climate Zone 9 **Operational Year** 2028

Utility Company Southern California Edison

CO2 Intensity (lb/MWhr) 702.44 **CH4 Intensity (lb/MWhr)** 0.029 **N2O Intensity (lb/MWhr)** 0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2865	46.4651	31.6150	0.0642	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,221.4937	6,221.4937	1.9491	0.0000	6,270.2214
2022	5.7218	38.9024	47.3319	0.1455	9.8688	1.6366	10.7736	3.6558	1.5057	5.1615	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663
2023	5.2705	26.4914	44.5936	0.1413	9.8688	0.7800	10.6488	2.6381	0.7328	3.3708	0.0000	14,210.3424	14,210.3424	1.0230	0.0000	14,235.9160
2024	237.2328	9.5610	15.0611	0.0243	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,352.4178	2,352.4178	0.7175	0.0000	2,370.3550
Maximum	**237.2328**	**46.4651**	**47.3319**	**0.1455**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**14,630.3099**	**14,630.3099**	**1.9499**	**0.0000**	**14,657.2663**

2.1 Overall Construction (Maximum Daily Emission)

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					
2021	4.2865	46.4651	31.6150	0.0642	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,221.4937	6,221.4937	1.9491	0.0000	6,270.2214
2022	5.7218	38.9024	47.3319	0.1455	9.8688	1.6366	10.7736	3.6558	1.5057	5.1615	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663
2023	5.2705	26.4914	44.5936	0.1413	9.8688	0.7800	10.6488	2.6381	0.7328	3.3708	0.0000	14,210.3424	14,210.3424	1.0230	0.0000	14,235.9160
2024	237.2328	9.5610	15.0611	0.0243	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,352.4178	2,352.4178	0.7175	0.0000	2,370.3550
Maximum	**237.2328**	**46.4651**	**47.3319**	**0.1455**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**14,630.3099**	**14,630.3099**	**1.9499**	**0.0000**	**14,657.2663**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

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	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.944 9	3,747.944 9	1.0549		3,774.317 4
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.944 9**	**3,747.944 9**	**1.0549**		**3,774.317 4**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.855 5	1,269.855 5	0.0908		1,272.125 2
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	**0.2019**	**4.1943**	**1.5706**	**0.0133**	**0.4346**	**0.0141**	**0.4487**	**0.1176**	**0.0135**	**0.1311**		**1,430.693 2**	**1,430.693 2**	**0.0955**		**1,433.081 2**

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					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.944 9	3,747.944 9	1.0549		3,774.317 4
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.944 9**	**3,747.944 9**	**1.0549**		**3,774.317 4**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	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	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.855 5	1,269.855 5	0.0908		1,272.125 2
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	**0.2019**	**4.1943**	**1.5706**	**0.0133**	**0.4346**	**0.0141**	**0.4487**	**0.1176**	**0.0135**	**0.1311**		**1,430.693 2**	**1,430.693 2**	**0.0955**		**1,433.081 2**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

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

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
Total	**0.0858**	**0.0587**	**0.6629**	**1.9400e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**193.0052**	**193.0052**	**5.6800e-003**		**193.1472**

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
Total	**0.0858**	**0.0587**	**0.6629**	**1.9400e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**193.0052**	**193.0052**	**5.6800e-003**		**193.1472**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
Total	**0.0954**	**0.0652**	**0.7365**	**2.1500e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**214.4502**	**214.4502**	**6.3100e-003**		**214.6080**

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					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
Total	**0.0954**	**0.0652**	**0.7365**	**2.1500e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**214.4502**	**214.4502**	**6.3100e-003**		**214.6080**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	**0.0896**	**0.0589**	**0.6784**	**2.0800e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**206.9139**	**206.9139**	**5.7000e-003**		**207.0563**

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					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	**0.0896**	**0.0589**	**0.6784**	**2.0800e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**206.9139**	**206.9139**	**5.7000e-003**		**207.0563**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	3.5872	2.3593	27.1680	0.0832	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,286.9013	8,286.9013	0.2282		8,292.6058
Total	**4.0156**	**15.5266**	**30.9685**	**0.1186**	**9.8688**	**0.0957**	**9.9645**	**2.6381**	**0.0891**	**2.7271**		**12,075.9763**	**12,075.9763**	**0.4663**		**12,087.6341**

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.075 0	3,789.075 0	0.2381		3,795.028 3
Worker	3.5872	2.3593	27.1680	0.0832	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,286.901 3	8,286.901 3	0.2282		8,292.605 8
Total	**4.0156**	**15.5266**	**30.9685**	**0.1186**	**9.8688**	**0.0957**	**9.9645**	**2.6381**	**0.0891**	**2.7271**		**12,075.97 63**	**12,075.97 63**	**0.4663**		**12,087.63 41**

3.5 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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.209 9	2,555.209 9	0.6079		2,570.406 1
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.209 9**	**2,555.209 9**	**0.6079**		**2,570.406 1**

3.5 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	3.3795	2.1338	24.9725	0.0801	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		7,983.7318	7,983.7318	0.2055		7,988.8683
Total	**3.6978**	**12.1065**	**28.3496**	**0.1144**	**9.8688**	**0.0803**	**9.9491**	**2.6381**	**0.0743**	**2.7124**		**11,655.1325**	**11,655.1325**	**0.4151**		**11,665.5099**

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.400 7	3,671.400 7	0.2096		3,676.641 7
Worker	3.3795	2.1338	24.9725	0.0801	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		7,983.731 8	7,983.731 8	0.2055		7,988.868 3
Total	**3.6978**	**12.1065**	**28.3496**	**0.1144**	**9.8688**	**0.0803**	**9.9491**	**2.6381**	**0.0743**	**2.7124**		**11,655.13 25**	**11,655.13 25**	**0.4151**		**11,665.50 99**

3.6 Paving - 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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.584 1	2,207.584 1	0.7140		2,225.433 6
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.584 1**	**2,207.584 1**	**0.7140**		**2,225.433 6**

3.6 Paving - 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.6043
Total	**0.0633**	**0.0400**	**0.4677**	**1.5000e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**149.5081**	**149.5081**	**3.8500e-003**		**149.6043**

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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.6043
Total	**0.0633**	**0.0400**	**0.4677**	**1.5000e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**149.5081**	**149.5081**	**3.8500e-003**		**149.6043**

3.6 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	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587
Total	**0.0601**	**0.0364**	**0.4354**	**1.4500e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**144.8706**	**144.8706**	**3.5300e-003**		**144.9587**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587
Total	**0.0601**	**0.0364**	**0.4354**	**1.4500e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**144.8706**	**144.8706**	**3.5300e-003**		**144.9587**

3.7 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	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545.286 0	1,545.286 0	0.0376		1,546.226 2
Total	**0.6406**	**0.3886**	**4.6439**	**0.0155**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,545.286 0**	**1,545.286 0**	**0.0376**		**1,546.226 2**

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	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545.286 0	1,545.286 0	0.0376		1,546.226 2
Total	**0.6406**	**0.3886**	**4.6439**	**0.0155**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,545.286 0**	**1,545.286 0**	**0.0376**		**1,546.226 2**

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	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

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
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

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	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7

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					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

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					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	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	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

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	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

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	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.2 **Precipitation Freq (Days)** 33

Climate Zone 9 **Operational Year** 2028

Utility Company Southern California Edison

CO2 Intensity (lb/MWhr) 702.44 **CH4 Intensity (lb/MWhr)** 0.029 **N2O Intensity (lb/MWhr)** 0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

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					
2021	0.1704	1.8234	1.1577	2.3800e-003	0.4141	0.0817	0.4958	0.1788	0.0754	0.2542	0.0000	210.7654	210.7654	0.0600	0.0000	212.2661
2022	0.5865	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6554	1,418.6554	0.1215	0.0000	1,421.6925
2023	0.5190	3.2850	4.7678	0.0147	0.8497	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342.4412	1,342.4412	0.1115	0.0000	1,345.2291
2024	4.1592	0.1313	0.2557	5.0000e-004	0.0221	6.3900e-003	0.0285	5.8700e-003	5.9700e-003	0.0118	0.0000	44.6355	44.6355	7.8300e-003	0.0000	44.8311
Maximum	**4.1592**	**4.0240**	**5.1546**	**0.0155**	**0.9509**	**0.1175**	**1.0683**	**0.2518**	**0.1103**	**0.3621**	**0.0000**	**1,418.6554**	**1,418.6554**	**0.1215**	**0.0000**	**1,421.6925**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1704	1.8234	1.1577	2.3800e-003	0.4141	0.0817	0.4958	0.1788	0.0754	0.2542	0.0000	210.7651	210.7651	0.0600	0.0000	212.2658
2022	0.5865	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6550	1,418.6550	0.1215	0.0000	1,421.6921
2023	0.5190	3.2850	4.7678	0.0147	0.8497	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342.4409	1,342.4409	0.1115	0.0000	1,345.2287
2024	4.1592	0.1313	0.2557	5.0000e-004	0.0221	6.3900e-003	0.0285	5.8700e-003	5.9700e-003	0.0118	0.0000	44.6354	44.6354	7.8300e-003	0.0000	44.8311
Maximum	**4.1592**	**4.0240**	**5.1546**	**0.0155**	**0.9509**	**0.1175**	**1.0683**	**0.2518**	**0.1103**	**0.3621**	**0.0000**	**1,418.6550**	**1,418.6550**	**0.1215**	**0.0000**	**1,421.6921**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**9-1-2021**	**11-30-2021**	1.4091	1.4091
2	**12-1-2021**	**2-28-2022**	1.3329	1.3329
3	**3-1-2022**	**5-31-2022**	1.1499	1.1499
4	**6-1-2022**	**8-31-2022**	1.1457	1.1457
5	**9-1-2022**	**11-30-2022**	1.1415	1.1415
6	**12-1-2022**	**2-28-2023**	1.0278	1.0278
7	**3-1-2023**	**5-31-2023**	0.9868	0.9868
8	**6-1-2023**	**8-31-2023**	0.9831	0.9831

9	**9-1-2023**	**11-30-2023**	0.9798	0.9798
10	**12-1-2023**	**2-29-2024**	2.8757	2.8757
11	**3-1-2024**	**5-31-2024**	1.6188	1.6188
		Highest	2.8757	2.8757

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	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

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	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0012**	**51.0012**	**0.0144**	**0.0000**	**51.3601**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
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	7.2000e-004	5.3000e-004	6.0900e-003	2.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5281	1.5281	5.0000e-005	0.0000	1.5293
Total	**2.6500e-003**	**0.0639**	**0.0209**	**2.0000e-004**	**5.6200e-003**	**2.0000e-004**	**5.8200e-003**	**1.5300e-003**	**1.9000e-004**	**1.7200e-003**	**0.0000**	**18.9847**	**18.9847**	**1.2600e-003**	**0.0000**	**19.0161**

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					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0011**	**51.0011**	**0.0144**	**0.0000**	**51.3600**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
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	7.2000e-004	5.3000e-004	6.0900e-003	2.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5281	1.5281	5.0000e-005	0.0000	1.5293
Total	**2.6500e-003**	**0.0639**	**0.0209**	**2.0000e-004**	**5.6200e-003**	**2.0000e-004**	**5.8200e-003**	**1.5300e-003**	**1.9000e-004**	**1.7200e-003**	**0.0000**	**18.9847**	**18.9847**	**1.2600e-003**	**0.0000**	**19.0161**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7061**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234
Total	**5.8000e-004**	**4.3000e-004**	**4.8700e-003**	**1.0000e-005**	**1.3400e-003**	**1.0000e-005**	**1.3500e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.2225**	**1.2225**	**4.0000e-005**	**0.0000**	**1.2234**

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					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7060**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234
Total	**5.8000e-004**	**4.3000e-004**	**4.8700e-003**	**1.0000e-005**	**1.3400e-003**	**1.0000e-005**	**1.3500e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.2225**	**1.2225**	**4.0000e-005**	**0.0000**	**1.2234**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5405**	**103.5405**	**0.0335**	**0.0000**	**104.3776**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
Total	**1.2200e-003**	**9.0000e-004**	**0.0103**	**3.0000e-005**	**2.8300e-003**	**2.0000e-005**	**2.8600e-003**	**7.5000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.5808**	**2.5808**	**8.0000e-005**	**0.0000**	**2.5828**

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					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5403**	**103.5403**	**0.0335**	**0.0000**	**104.3775**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
Total	**1.2200e-003**	**9.0000e-004**	**0.0103**	**3.0000e-005**	**2.8300e-003**	**2.0000e-005**	**2.8600e-003**	**7.5000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.5808**	**2.5808**	**8.0000e-005**	**0.0000**	**2.5828**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590
Total	**2.1000e-004**	**1.5000e-004**	**1.7400e-003**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4587**	**0.4587**	**1.0000e-005**	**0.0000**	**0.4590**

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					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590
Total	**2.1000e-004**	**1.5000e-004**	**1.7400e-003**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4587**	**0.4587**	**1.0000e-005**	**0.0000**	**0.4590**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1324**	**293.1324**	**0.0702**	**0.0000**	**294.8881**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.3051	0.2164	2.5233	7.3500e-003	0.7557	6.2300e-003	0.7619	0.2007	5.7400e-003	0.2065	0.0000	663.9936	663.9936	0.0187	0.0000	664.4604
Total	**0.3578**	**1.9125**	**2.9812**	**0.0119**	**0.8696**	**9.4100e-003**	**0.8790**	**0.2336**	**8.7800e-003**	**0.2424**	**0.0000**	**1,105.9771**	**1,105.9771**	**0.0451**	**0.0000**	**1,107.1039**

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	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1321**	**293.1321**	**0.0702**	**0.0000**	**294.8877**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.3051	0.2164	2.5233	7.3500e-003	0.7557	6.2300e-003	0.7619	0.2007	5.7400e-003	0.2065	0.0000	663.9936	663.9936	0.0187	0.0000	664.4604
Total	**0.3578**	**1.9125**	**2.9812**	**0.0119**	**0.8696**	**9.4100e-003**	**0.8790**	**0.2336**	**8.7800e-003**	**0.2424**	**0.0000**	**1,105.9771**	**1,105.9771**	**0.0451**	**0.0000**	**1,107.1039**

3.5 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	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2789**	**286.2789**	**0.0681**	**0.0000**	**287.9814**

3.5 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	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.2795	0.1910	2.2635	6.9100e-003	0.7377	5.9100e-003	0.7436	0.1960	5.4500e-003	0.2014	0.0000	624.5363	624.5363	0.0164	0.0000	624.9466
Total	**0.3177**	**1.4420**	**2.6646**	**0.0112**	**0.8490**	**7.3700e-003**	**0.8564**	**0.2281**	**6.8500e-003**	**0.2349**	**0.0000**	**1,042.5294**	**1,042.5294**	**0.0392**	**0.0000**	**1,043.5090**

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	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0681	0.0000	287.9811
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2785**	**286.2785**	**0.0681**	**0.0000**	**287.9811**

3.5 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	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.2795	0.1910	2.2635	6.9100e-003	0.7377	5.9100e-003	0.7436	0.1960	5.4500e-003	0.2014	0.0000	624.5363	624.5363	0.0164	0.0000	624.9466
Total	**0.3177**	**1.4420**	**2.6646**	**0.0112**	**0.8490**	**7.3700e-003**	**0.8564**	**0.2281**	**6.8500e-003**	**0.2349**	**0.0000**	**1,042.5294**	**1,042.5294**	**0.0392**	**0.0000**	**1,043.5090**

3.6 Paving - 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	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160
Total	**2.8000e-004**	**1.9000e-004**	**2.2300e-003**	**1.0000e-005**	**7.3000e-004**	**1.0000e-005**	**7.3000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6156**	**0.6156**	**2.0000e-005**	**0.0000**	**0.6160**

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

3.6 Paving - 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160
Total	**2.8000e-004**	**1.9000e-004**	**2.2300e-003**	**1.0000e-005**	**7.3000e-004**	**1.0000e-005**	**7.3000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6156**	**0.6156**	**2.0000e-005**	**0.0000**	**0.6160**

3.6 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	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 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	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
Total	**4.4000e-004**	**2.9000e-004**	**3.5100e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0094**	**1.0094**	**3.0000e-005**	**0.0000**	**1.0100**

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	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 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	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
Total	**4.4000e-004**	**2.9000e-004**	**3.5100e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0094**	**1.0094**	**3.0000e-005**	**0.0000**	**1.0100**

3.7 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	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 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	7.4800e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394
Total	**7.4800e-003**	**4.9300e-003**	**0.0596**	**1.9000e-004**	**0.0209**	**1.6000e-004**	**0.0211**	**5.5500e-003**	**1.5000e-004**	**5.7000e-003**	**0.0000**	**17.1287**	**17.1287**	**4.3000e-004**	**0.0000**	**17.1394**

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	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 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	7.4800e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394
Total	**7.4800e-003**	**4.9300e-003**	**0.0596**	**1.9000e-004**	**0.0209**	**1.6000e-004**	**0.0211**	**5.5500e-003**	**1.5000e-004**	**5.7000e-003**	**0.0000**	**17.1287**	**17.1287**	**4.3000e-004**	**0.0000**	**17.1394**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

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
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive 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	2,512.646 5	2,512.646 5	0.1037	0.0215	2,521.635 6
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.646 5	2,512.646 5	0.1037	0.0215	2,521.635 6
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.426 7	1,383.426 7	0.0265	0.0254	1,391.647 8
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.426 7	1,383.426 7	0.0265	0.0254	1,391.647 8

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					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

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					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive 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	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Unmitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

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	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

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	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	585.8052	3.0183	0.0755	683.7567
Unmitigated	585.8052	3.0183	0.0755	683.7567

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	207.8079	12.2811	0.0000	514.8354
Unmitigated	207.8079	12.2811	0.0000	514.8354

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.2 **Precipitation Freq (Days)** 33

Climate Zone 9 **Operational Year** 2028

Utility Company Southern California Edison

CO2 Intensity (lb/MWhr) 702.44 **CH4 Intensity (lb/MWhr)** 0.029 **N2O Intensity (lb/MWhr)** 0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2561	46.4415	31.4494	0.0636	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,163.4166	6,163.4166	1.9475	0.0000	6,212.1039
2022	4.5441	38.8811	40.8776	0.1240	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,493.4403	12,493.4403	1.9485	0.0000	12,518.5707
2023	4.1534	25.7658	38.7457	0.1206	7.0088	0.7592	7.7679	1.8799	0.7136	2.5935	0.0000	12,150.4890	12,150.4890	0.9589	0.0000	12,174.4615
2024	237.0219	9.5478	14.9642	0.0239	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,313.1808	2,313.1808	0.7166	0.0000	2,331.0956
Maximum	**237.0219**	**46.4415**	**40.8776**	**0.1240**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,493.4403**	**12,493.4403**	**1.9485**	**0.0000**	**12,518.5707**

2.1 Overall Construction (Maximum Daily Emission)

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					
2021	4.2561	46.4415	31.4494	0.0636	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,163.4166	6,163.4166	1.9475	0.0000	6,212.1039
2022	4.5441	38.8811	40.8776	0.1240	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,493.4403	12,493.4403	1.9485	0.0000	12,518.5707
2023	4.1534	25.7658	38.7457	0.1206	7.0088	0.7592	7.7679	1.8799	0.7136	2.5935	0.0000	12,150.4890	12,150.4890	0.9589	0.0000	12,174.4615
2024	237.0219	9.5478	14.9642	0.0239	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,313.1808	2,313.1808	0.7166	0.0000	2,331.0955
Maximum	**237.0219**	**46.4415**	**40.8776**	**0.1240**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,493.4403**	**12,493.4403**	**1.9485**	**0.0000**	**12,518.5707**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

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	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0313	0.4282	1.1800e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		117.2799	117.2799	3.5200e-003		117.3678
Total	**0.1760**	**4.1265**	**1.3884**	**0.0131**	**0.3810**	**0.0135**	**0.3946**	**0.1034**	**0.0129**	**0.1163**		**1,409.5212**	**1,409.5212**	**0.0912**		**1,411.8015**

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					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.241 3	1,292.241 3	0.0877		1,294.433 7
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0313	0.4282	1.1800e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		117.2799	117.2799	3.5200e-003		117.3678
Total	**0.1760**	**4.1265**	**1.3884**	**0.0131**	**0.3810**	**0.0135**	**0.3946**	**0.1034**	**0.0129**	**0.1163**		**1,409.521 2**	**1,409.521 2**	**0.0912**		**1,411.801 5**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

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

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414
Total	**0.0584**	**0.0375**	**0.5139**	**1.4100e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**140.7359**	**140.7359**	**4.2200e-003**		**140.8414**

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414
Total	**0.0584**	**0.0375**	**0.5139**	**1.4100e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**140.7359**	**140.7359**	**4.2200e-003**		**140.8414**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0649	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904
Total	**0.0649**	**0.0417**	**0.5710**	**1.5700e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**156.3732**	**156.3732**	**4.6900e-003**		**156.4904**

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					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0649	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904
Total	**0.0649**	**0.0417**	**0.5710**	**1.5700e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**156.3732**	**156.3732**	**4.6900e-003**		**156.4904**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813
Total	**0.0607**	**0.0376**	**0.5263**	**1.5100e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**150.8754**	**150.8754**	**4.2400e-003**		**150.9813**

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					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813
Total	**0.0607**	**0.0376**	**0.5263**	**1.5100e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**150.8754**	**150.8754**	**4.2400e-003**		**150.9813**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.548 2	3,896.548 2	0.2236		3,902.138 4
Worker	2.4299	1.5074	21.0801	0.0607	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		6,042.558 5	6,042.558 5	0.1697		6,046.800 0
Total	**2.8378**	**14.7106**	**24.5142**	**0.0971**	**7.0087**	**0.0741**	**7.0828**	**1.8799**	**0.0691**	**1.9490**		**9,939.106 7**	**9,939.106 7**	**0.3933**		**9,948.938 4**

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.333 6	2,554.333 6	0.6120		2,569.632 2
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.333 6**	**2,554.333 6**	**0.6120**		**2,569.632 2**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.548 2	3,896.548 2	0.2236		3,902.138 4
Worker	2.4299	1.5074	21.0801	0.0607	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		6,042.558 5	6,042.558 5	0.1697		6,046.800 0
Total	**2.8378**	**14.7106**	**24.5142**	**0.0971**	**7.0087**	**0.0741**	**7.0828**	**1.8799**	**0.0691**	**1.9490**		**9,939.106 7**	**9,939.106 7**	**0.3933**		**9,948.938 4**

3.5 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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.209 9	2,555.209 9	0.6079		2,570.406 1
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.209 9**	**2,555.209 9**	**0.6079**		**2,570.406 1**

3.5 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.876 2	3,773.876 2	0.1982		3,778.830 0
Worker	2.2780	1.3628	19.4002	0.0584	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,821.402 8	5,821.402 8	0.1529		5,825.225 4
Total	**2.5807**	**11.3809**	**22.5017**	**0.0936**	**7.0088**	**0.0595**	**7.0682**	**1.8799**	**0.0552**	**1.9350**		**9,595.279 0**	**9,595.279 0**	**0.3511**		**9,604.055 4**

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.209 9	2,555.209 9	0.6079		2,570.406 1
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.209 9**	**2,555.209 9**	**0.6079**		**2,570.406 1**

3.5 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	2.2780	1.3628	19.4002	0.0584	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,821.4028	5,821.4028	0.1529		5,825.2254
Total	**2.5807**	**11.3809**	**22.5017**	**0.0936**	**7.0088**	**0.0595**	**7.0682**	**1.8799**	**0.0552**	**1.9350**		**9,595.2790**	**9,595.2790**	**0.3511**		**9,604.0554**

3.6 Paving - 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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866
Total	**0.0427**	**0.0255**	**0.3633**	**1.0900e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**109.0150**	**109.0150**	**2.8600e-003**		**109.0866**

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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866
Total	**0.0427**	**0.0255**	**0.3633**	**1.0900e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**109.0150**	**109.0150**	**2.8600e-003**		**109.0866**

3.6 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	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.547 2**	**2,207.547 2**	**0.7140**		**2,225.396 3**

3.6 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992
Total	**0.0403**	**0.0233**	**0.3384**	**1.0600e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**105.6336**	**105.6336**	**2.6300e-003**		**105.6992**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992
Total	**0.0403**	**0.0233**	**0.3384**	**1.0600e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**105.6336**	**105.6336**	**2.6300e-003**		**105.6992**

3.7 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	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4296	0.2481	3.6098	0.0113	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.758 3	1,126.758 3	0.0280		1,127.458 3
Total	**0.4296**	**0.2481**	**3.6098**	**0.0113**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,126.758 3**	**1,126.758 3**	**0.0280**		**1,127.458 3**

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	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4296	0.2481	3.6098	0.0113	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.758 3	1,126.758 3	0.0280		1,127.458 3
Total	**0.4296**	**0.2481**	**3.6098**	**0.0113**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,126.758 3**	**1,126.758 3**	**0.0280**		**1,127.458 3**

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	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

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
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

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	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7

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					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

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					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	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	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

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	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

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	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2621	46.4460	31.4068	0.0635	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,154.3377	6,154.3377	1.9472	0.0000	6,203.0186
2022	4.7966	38.8851	39.6338	0.1195	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,035.3440	12,035.3440	1.9482	0.0000	12,060.6013
2023	4.3939	25.8648	37.5031	0.1162	7.0088	0.7598	7.7685	1.8799	0.7142	2.5940	0.0000	11,710.4080	11,710.4080	0.9617	0.0000	11,734.4497
2024	237.0656	9.5503	14.9372	0.0238	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,307.0517	2,307.0517	0.7164	0.0000	2,324.9627
Maximum	**237.0656**	**46.4460**	**39.6338**	**0.1195**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,035.3440**	**12,035.3440**	**1.9482**	**0.0000**	**12,060.6013**

2.1 Overall Construction (Maximum Daily Emission)

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					
2021	4.2621	46.4460	31.4068	0.0635	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,154.337 7	6,154.337 7	1.9472	0.0000	6,203.018 6
2022	4.7966	38.8851	39.6338	0.1195	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,035.34 40	12,035.34 40	1.9482	0.0000	12,060.60 13
2023	4.3939	25.8648	37.5031	0.1162	7.0088	0.7598	7.7685	1.8799	0.7142	2.5940	0.0000	11,710.40 80	11,710.40 80	0.9617	0.0000	11,734.44 97
2024	237.0656	9.5503	14.9372	0.0238	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,307.051 7	2,307.051 7	0.7164	0.0000	2,324.962 7
Maximum	**237.0656**	**46.4460**	**39.6338**	**0.1195**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,035.34 40**	**12,035.34 40**	**1.9482**	**0.0000**	**12,060.60 13**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

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	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.944 9	3,747.944 9	1.0549		3,774.317 4
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.944 9**	**3,747.944 9**	**1.0549**		**3,774.317 4**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.855 5	1,269.855 5	0.0908		1,272.125 2
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0532	0.0346	0.3963	1.1100e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		110.4707	110.4707	3.3300e-003		110.5539
Total	**0.1835**	**4.1800**	**1.4144**	**0.0128**	**0.3810**	**0.0137**	**0.3948**	**0.1034**	**0.0131**	**0.1165**		**1,380.326 2**	**1,380.326 2**	**0.0941**		**1,382.679 1**

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					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.944 9	3,747.944 9	1.0549		3,774.317 4
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.944 9**	**3,747.944 9**	**1.0549**		**3,774.317 4**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	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	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0532	0.0346	0.3963	1.1100e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		110.4707	110.4707	3.3300e-003		110.5539
Total	**0.1835**	**4.1800**	**1.4144**	**0.0128**	**0.3810**	**0.0137**	**0.3948**	**0.1034**	**0.0131**	**0.1165**		**1,380.3262**	**1,380.3262**	**0.0941**		**1,382.6791**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category						lb/day								lb/day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0415	0.4755	1.3300e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646
Total	**0.0638**	**0.0415**	**0.4755**	**1.3300e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**132.5649**	**132.5649**	**3.9900e-003**		**132.6646**

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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0415	0.4755	1.3300e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646
Total	**0.0638**	**0.0415**	**0.4755**	**1.3300e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**132.5649**	**132.5649**	**3.9900e-003**		**132.6646**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051
Total	**0.0709**	**0.0462**	**0.5284**	**1.4800e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**147.2943**	**147.2943**	**4.4300e-003**		**147.4051**

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					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051
Total	**0.0709**	**0.0462**	**0.5284**	**1.4800e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**147.2943**	**147.2943**	**4.4300e-003**		**147.4051**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207
Total	**0.0665**	**0.0416**	**0.4861**	**1.4300e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**142.1207**	**142.1207**	**4.0000e-003**		**142.2207**

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					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207
Total	**0.0665**	**0.0416**	**0.4861**	**1.4300e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**142.1207**	**142.1207**	**4.0000e-003**		**142.2207**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.075 0	3,789.075 0	0.2381		3,795.028 3
Worker	2.6620	1.6677	19.4699	0.0571	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		5,691.935 4	5,691.935 4	0.1602		5,695.940 8
Total	**3.0904**	**14.8350**	**23.2704**	**0.0926**	**7.0087**	**0.0749**	**7.0836**	**1.8799**	**0.0699**	**1.9498**		**9,481.010 4**	**9,481.010 4**	**0.3984**		**9,490.969 1**

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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.333 6	2,554.333 6	0.6120		2,569.632 2
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.333 6**	**2,554.333 6**	**0.6120**		**2,569.632 2**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.075 0	3,789.075 0	0.2381		3,795.028 3
Worker	2.6620	1.6677	19.4699	0.0571	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		5,691.935 4	5,691.935 4	0.1602		5,695.940 8
Total	**3.0904**	**14.8350**	**23.2704**	**0.0926**	**7.0087**	**0.0749**	**7.0836**	**1.8799**	**0.0699**	**1.9498**		**9,481.010 4**	**9,481.010 4**	**0.3984**		**9,490.969 1**

3.5 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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.209 9	2,555.209 9	0.6079		2,570.406 1
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.209 9**	**2,555.209 9**	**0.6079**		**2,570.406 1**

3.5 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.400 7	3,671.400 7	0.2096		3,676.641 7
Worker	2.5029	1.5073	17.8820	0.0550	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,483.797 4	5,483.797 4	0.1442		5,487.402 0
Total	**2.8211**	**11.4799**	**21.2591**	**0.0893**	**7.0088**	**0.0601**	**7.0688**	**1.8799**	**0.0557**	**1.9356**		**9,155.198 1**	**9,155.198 1**	**0.3538**		**9,164.043 7**

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.209 9	2,555.209 9	0.6079		2,570.406 1
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.209 9**	**2,555.209 9**	**0.6079**		**2,570.406 1**

3.5 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.400 7	3,671.400 7	0.2096		3,676.641 7
Worker	2.5029	1.5073	17.8820	0.0550	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,483.797 4	5,483.797 4	0.1442		5,487.402 0
Total	**2.8211**	**11.4799**	**21.2591**	**0.0893**	**7.0088**	**0.0601**	**7.0688**	**1.8799**	**0.0557**	**1.9356**		**9,155.198 1**	**9,155.198 1**	**0.3538**		**9,164.043 7**

3.6 Paving - 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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.584 1	2,207.584 1	0.7140		2,225.433 6
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.584 1**	**2,207.584 1**	**0.7140**		**2,225.433 6**

3.6 Paving - 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603
Total	**0.0469**	**0.0282**	**0.3349**	**1.0300e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**102.6928**	**102.6928**	**2.7000e-003**		**102.7603**

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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603
Total	**0.0469**	**0.0282**	**0.3349**	**1.0300e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**102.6928**	**102.6928**	**2.7000e-003**		**102.7603**

3.6 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	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.547 2**	**2,207.547 2**	**0.7140**		**2,225.396 3**

3.6 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663
Total	**0.0444**	**0.0257**	**0.3114**	**1.0000e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**99.5045**	**99.5045**	**2.4700e-003**		**99.5663**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.547 2**	**2,207.547 2**	**0.7140**		**2,225.396 3**

3.6 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						lb/day								lb/day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663
Total	**0.0444**	**0.0257**	**0.3114**	**1.0000e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**99.5045**	**99.5045**	**2.4700e-003**		**99.5663**

3.7 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	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4734	0.2743	3.3220	0.0107	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410
Total	**0.4734**	**0.2743**	**3.3220**	**0.0107**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,061.3818**	**1,061.3818**	**0.0264**		**1,062.0410**

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	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4734	0.2743	3.3220	0.0107	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410
Total	**0.4734**	**0.2743**	**3.3220**	**0.0107**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,061.3818**	**1,061.3818**	**0.0264**		**1,062.0410**

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	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

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
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

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	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.983 2	8,355.983 2	0.1602	0.1532	8,405.638 7

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					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.916 4	4,209.916 4	0.0807	0.0772	4,234.933 9
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.634 2	2,677.634 2	0.0513	0.0491	2,693.546 0
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.983 2**	**8,355.983 2**	**0.1602**	**0.1532**	**8,405.638 7**

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					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	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	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

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	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

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	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,623
Amortized (MT CO2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized (MT CO2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

EXHIBIT B

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

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Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

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

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

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

Professional Experience

Dr. Rosenfeld has over 25 years' 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 unconventional oil drilling operations, oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, and many other industrial and agricultural sources. 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 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, 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 dozens of sites and has testified as an expert witness on more than ten cases involving exposure to air contaminants from industrial sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Teaching Experience:

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

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

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

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

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

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

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

Academic Grants Awarded:

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

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

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

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

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

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

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

Deposition and/or Trial Testimony:

In the 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, *Plaintiffs,* 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.: 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.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case: No 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No 1923
Rosenfeld Deposition, 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., 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 The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs,* vs. Meritor Inc., et al., *Defendants*
Case Number: 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.: 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 Iowa District Court For Wapello County
Jerry Dovico, et al., Plaintiffs vs. Valley View Sine LLC, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Doug Pauls, et al.,, et al., Plaintiffs vs. Richard Warren, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action N0. 14-C-30000
Rosenfeld Deposition, June 2015

In The Third Judicial District County of Dona Ana, New Mexico
Betty Gonzalez, et al. Plaintiffs vs. Del Oro Dairy, Del Oro Real Estate LLC, Jerry Settles and Deward DeRuyter, Defendants
Rosenfeld Deposition: July 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014

In the United States District Court Western District of Oklahoma
Tommy McCarty, et al., Plaintiffs, v. Oklahoma City Landfill, LLC d/b/a Southeast Oklahoma City Landfill, et al. Defendants.
Case No. 5:12-cv-01152-C
Rosenfeld Deposition: July 2014

In the County Court of Dallas County Texas
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant.*
Case Number 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 Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the United States District Court of Southern District of Texas Galveston Division
Kyle Cannon, Eugene Donovan, Genaro Ramirez, Carol Sassler, and Harvey Walton, each Individually and on behalf of those similarly situated, *Plaintiffs,* vs. BP Products North America, Inc., *Defendant.*
Case 3:10-cv-00622
Rosenfeld Deposition: February 2012
Rosenfeld Trial: April 2013

In the Circuit Court of Baltimore County Maryland
Philip E. Cvach, II et al., *Plaintiffs* vs. Two Farms, Inc. d/b/a Royal Farms, Defendants
Case Number: 03-C-12-012487 OT
Rosenfeld Deposition: September 2013

EXHIBIT C

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

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Santa Monica, California 90401
Tel: (949) 887-9013
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Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Industrial Stormwater Compliance
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 25 years of experience in environmental policy, assessment and remediation. 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) while also working with permit holders to improve hydrogeologic characterization and water quality monitoring.

Matt has worked closely with U.S. EPA legal counsel and the technical staff of several states in the application and enforcement of RCRA, Safe Drinking Water Act and Clean Water Act regulations. Matt has trained the technical staff in the States of California, Hawaii, Nevada, Arizona and the Territory of Guam in the conduct of investigations, groundwater fundamentals, and sampling techniques.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2014;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 100 environmental impact reports since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, Valley Fever, 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 industrial facilities.
- Manager of a project to provide technical assistance to a community adjacent to a former Naval shipyard under a grant from the U.S. EPA.
- 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.
- Expert witness on two cases involving MTBE litigation.
- Expert witness and litigation support on the impact of air toxins and hazards at a school.
- Expert witness in litigation at a former plywood plant.

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 taught physical geology (lecture and lab and introductory geology at Golden West College in Huntington Beach, California from 2010 to 2014.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F**. 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examination, 2009-2011.

Letter 6

COMMENTER: Jeremy Herwitt, Mitchell M. Tsai Law Firm

DATE: August 5, 2024

Response 6.1

The commenter indicates that they are submitting comments on the Draft EIR and provide the project description that appears in the Notice of Availability prepared for the Draft EIR.

This comment does not question the analysis or conclusions of the Draft EIR. Therefore, no revisions to the Draft EIR are necessary in response to this comment.

Response 6.2

The commenter states they represent union carpenters in the project area who may be affected by the environmental impacts of the project. The commenter asserts the right to supplement their comment letter in the future, such as prior to and during hearings on the project. The commenter also indicates they incorporate by reference all comments related to the project or its CEQA review.

This comment does not question the analysis or conclusions of the Draft EIR. Therefore, no revisions to the Draft EIR are necessary in response to this comment. For informational purposes, the Draft EIR discloses the potential environmental impacts of the project, including impacts on the human environment. For example, the potential noise impacts of the project are evaluated and discussed in Section 4.3, *Noise and Vibration*, of the Draft EIR. Therefore, the Draft EIR discloses potential environmental impacts, including those on the human environment, consistent with Appendix G of the *State CEQA Guidelines*.

The commenter has the ability to submit or supplement comments in the future, as described in the comment letter.

Response 6.3

The commenter requests that they be provided with all notices related or referring to the project that are issued under CEQA.

This comment does not question the analysis or conclusions of the Draft EIR. Therefore, no revisions to the Draft EIR are necessary in response to this comment. At the request of the commenter, the City has updated its mailing list to include this commenter on future CEQA notices for this project.

Response 6.4

The commenter suggests that the City require that the construction workforce consist of local hires. The comment suggests that a local-workforce requirement would reduce environmental impacts, including the GHG emissions of the project.

This comment addresses topic similar to those addressed in Comment Letter 4. Comment 4.2 specifically, discusses the thresholds of significance that the City chose to use for the GHG impact analysis in the Draft EIR. Briefly, as described in Response 4.2, the Draft EIR uses the Bay Area Air Quality Management District 2022 CEQA Guidelines to determine the significance of GHG impacts resulting from the project. The significance thresholds in the 2022 CEQA Guidelines are based on incorporating specific design features into a project that avoid the long-term commitment to GHG emission sources and move the state toward its carbon neutrality goals. As described in Response 4.2, one of the design features listed in the significance criteria is if the project would result in VMT

As discussed on page 4.1-8 of the Draft EIR, project construction would generate GHG emissions from the combustion of fuels used to power construction equipment, such as gasoline and diesel fuel. Construction workers would also use personal vehicles to commute to the project site, resulting in additional GHG emissions. The generation of GHG emissions from project construction activities would be temporary for the duration of construction, which would be approximately 18 months with some periods of inactivity. Project construction would not conflict with the BAAQMD threshold of significance, because construction would not involve buildings or permanent substantial increases in VMT or wasteful or excessive energy consumption. Accordingly, construction of the project would not generate GHG emissions that result in significant impacts on the environment. Therefore, it is unnecessary to incorporate additional mitigation into the Draft EIR that would reduce emissions from construction workforce vehicle trips. Further, project construction is expected to draw construction workers primarily from the local or regional workforce in either case.

As discussed in detail in Response 4.9, above, the VMT generated by the project operation would be at least 15 percent below the average VMT per employee in the region. Additionally, the proposed project would include 21 electric-vehicle ready parking spaces, which would meet and exceed the CalGreen Code requirement. Accordingly, as concluded on page 4.1-8 of the Draft EIR, the proposed project would satisfy the transportation design elements of the BAAQMD 2022 CEQA Guidelines significance thresholds. Therefore, it is unnecessary to incorporate additional mitigation into the Draft EIR that would reduce emissions from workforce vehicle trips, as the transportation components of the project would be consistent with the BAAQMD 2022 CEQA Guidelines thresholds of significance.

As described in Response 4.3, the discussion beginning on page 4.1-8 of the Draft EIR identifies a significant and unavoidable GHG impact resulting from operation of the project. The impact is related to the long-term commitment to GHG emissions due to the provision of natural gas plumbing in the proposed building. Incorporating a mitigation measure into the Draft EIR that would require a local workforce be used would not reduce the potentially significant GHG impact because the impact is related to natural gas plumbing and not from mobile-source emissions of the project workforce.

The commenter provides no recommendations for mitigation measures or project alternatives that would reduce the long-term commitment to natural gas and thereby reduce the potentially significant GHG impacts of the project. Accordingly, no revisions to the Draft EIR are required in response to this comment.

Response 6.5

The commenter suggests that the City require that the project workforce consist of local hires in order to reduce the transportation impacts of the project.

The City acknowledges that when people work proximate to their location of employment, they may more frequently choose to use active transportation modes (walking, bicycling, etc.) or public transit for commuting instead of personal vehicles. However, as discussed in detail in Response 5.32 in Comment Letter 5, the transportation impacts of the project would be less than significant without mitigation. It is unnecessary to incorporate additional mitigation measures into the Draft EIR requiring a local workforce for the project to reduce transportation impacts to less than significant levels, because transportation impacts would be less than significant without mitigation. Further, project construction is expected to draw construction workers primarily from the local or regional workforce in either case. Therefore, no revisions to the Draft EIR are required in response to this comment.

Response 6.6

The commenter provides a summary of their understanding of Assembly Bill 2011, otherwise known as the Affordable Housing and High Road Jobs Act of 2022.

This comment does not question the analysis or conclusions of the Draft EIR. Therefore, no revisions to the Draft EIR are necessary in response to this comment.

Response 6.7

The commenter suggests that the City should utilize local workforce policies and requirements to mitigate GHG impacts, improve air quality, and reduce transportation impacts.

This comment is similar to Comment 6.4 and Comment 6.5, as they relate to utilizing a local workforce to reduce GHG impacts and transportation impacts. As discussed in Response 6.4, a local workforce requirement would not reduce the potentially significant GHG impacts of the project, which are related to the long-term commitment to fossil fuels due to the provision of natural gas plumbing in the proposed building. The natural gas plumbing would persist in the building regardless of where the project workforce resides. As discussed in Response 6.5, the transportation impacts of the project would be less than significant without mitigation. No additional or new mitigation, including mitigation requiring a local workforce, is required to reduce the transportation impacts of the project.

This comment also suggests that a local workforce requirement would improve air quality. The air quality impacts of the project are evaluated in the Initial Study, which is provided as Appendix A to the Draft EIR. As described on page 41 of the Initial Study, project construction would generate emissions of criteria pollutants as well as fugitive dust. As shown in Table 6 on page 41 of the Initial Study, construction emissions would be below significance thresholds established by the BAAQMD. The project must also implement Mitigation Measure AQ-1, which would reduce fugitive dust emissions during construction, as described on pages 42 and 43 of the Initial Study. With implementation of Mitigation Measure AQ-1, project construction would result in less than significant impacts associated with emissions of criteria pollutants. As shown in Table 7 on page 42 of the Initial Study, the estimated operational emissions of the project would not exceed BAAQMD thresholds for criteria pollutants. Therefore, project operation would not result in a cumulatively considerable net increase of a criteria pollutant for which the project region is in non-attainment. Project operation would result in less than significant impacts associated with emissions of criteria pollutants. Further, project construction is expected to draw construction workers primarily from the local or regional workforce in either case.

As the air quality impacts of the project would be less than significant with or without mitigation, depending on if the project is under construction or operational, no additional or new mitigation is required to reduce the air quality impacts of the project. Therefore, no revisions to the Draft EIR are required in response to this comment. Nevertheless, the commenter’s suggestions regarding local hiring will be forwarded to the City’s decision makers for their consideration.

Response 6.8

The commenter provides an overview of CEQA regulations and cites various case law which have set precedent on how some aspects of CEQA are interpreted. The commenter explains purposes of an EIR, when a lead agency should prepare an EIR, how significant impacts are defined, and requirements for conducting studies to support an EIR.

This comment appears to be a summary of the commenter's understanding of when an EIR should be prepared, generally, and does not appear to pertain to the proposed project or the Draft EIR. Therefore, no revisions to the Draft EIR are required in response to this comment.

Response 6.9

The commenter provides a summary or overview of their understanding of how impact significance determinations in an EIR must be supported by substantial evidence.

This comment does not appear to pertain to the proposed project or the Draft EIR. For example, the commenter does not mention the proposed project, the Draft EIR, or the City of San Leandro in the comment. Therefore, no revisions to the Draft EIR are required in response to this comment.

Response 6.10

The commenter asserts that CEQA documents must provide technical details to support impact determinations, and how those details can be included as appendices to the CEQA document. The commenter opines that the Draft EIR omits supporting information regarding the energy impacts of the project, fails to use a correct threshold of significance, and improperly determines energy impacts would be less than significant.

The energy impacts of the proposed project are evaluated in Section 6, *Energy*, of the Initial Study, which is provided as Appendix A to the Draft EIR. As shown on page 59 of the Initial Study, energy impacts are assessed using checklist questions provided in Appendix G of the *State CEQA Guidelines*. The analysis of potential energy impacts for these checklist questions begins on page 62. As described therein, the proposed project must conform to regulatory requirements pertaining to building design and energy efficiency, including California's CalGreen standards (California Code of Regulations Title 24, Part 11) and the 2022 Building Energy Efficiency Standards (California Code of Regulations Title 24, Part 6). These standards are specifically crafted for new buildings to result in energy efficient performance so that the buildings do not result in wasteful, inefficient, or unnecessary consumption of energy. Therefore, it would be expected that building energy consumption associated with the proposed project would not be more inefficient, wasteful, or unnecessary than for other similar buildings in the region. Additionally, as shown in Table 12 beginning on page 63 of the Initial Study and Table 13 beginning on page 64 of the Initial Study, the project would be consistent with and not conflict with nor obstruct State and local renewable energy and energy efficiency plans. For these reasons, the Initial Study determined that energy impacts of the project would be less than significant.

The Initial Study relies upon mandatory compliance with regulatory requirements and building code and the design of the project to determine that impacts would be less than significant. Therefore, the Draft EIR does not omit supporting information regarding the energy impacts of the project.

The commenter provides no detail on what thresholds of significance they suggest for the analysis of energy impacts. Therefore, no revisions to the Draft EIR are required in response to this comment.

Response 6.11

The commenter asserts that the Initial Study improperly compares energy use of the proposed project to energy use of Alameda County to determine the significance of energy impacts. The commenter opines the EIR fails to provide substantial evidence for use this comparison as a threshold of significance.

The commenter is incorrect in asserting that the Initial Study compares energy use of the project to energy use of Alameda County to determine the significance of environmental impacts. As described in Response 6.10, the Initial Study relies upon mandatory compliance with regulatory requirements and building code and the design of the project to determine that impacts would be less than significant. No comparison of project energy use and Alameda County energy use is provided in the Initial Study. Such a comparison is also not provided elsewhere in the Draft EIR. Accordingly, no revisions to the Draft EIR are required in response to this comment.

For informational purposes, the Initial Study does describe existing estimated energy use in Alameda County. However, this information is presented as part of the existing setting, discussed under the heading "Setting" on pages 59 and 60 of the Initial Study. This information is not relied on for the impact analysis or determination of impact significance.

Response 6.12

The commenter asserts that comparing the energy use of the proposed project to the energy use of Alameda County to determine the significance of energy impacts is unjustified. The commenter opines that the Draft EIR should compare energy use to the amount of energy currently used at the project site, as well as present the proportional contribution of the project to overall City use.

As discussed in Response 6.11, the Draft EIR does not evaluate the potential energy impacts of the project using a comparison with energy use in Alameda County. As discussed in Response 6.10, the analysis of energy impacts and determination of impact severity is based on the design of the project and mandatory compliance with regulatory requirements and building code specifically adopted to reduce wasteful energy consumption and increase energy efficiency. In this way, the Draft EIR effectively assumes energy use at the project site is currently zero, as all energy consumed by the proposed project is conservatively considered an entirely new use at the project site in the impact analysis.

Determining and specifying the percentage of city energy use that the project would comprise is unnecessary and uninformative for the Draft EIR impact analysis. This type of comparison would not provide a meaningful quantification of energy use such that an impact determination could be made. For example, there are no thresholds of significance specifying what percentage of total energy use across a city, county or region is considered significant. However, for informational purposes, the proposed project can reasonably be assumed to be a negligible percentage of city-wide energy use. This assumption is reasonable because the project represents a single warehouse among dozens if not hundreds of other existing warehouses in San Leandro, include the existing warehouse on the project site that would be demolished. Additionally, the proposed warehouse would be constructed compliant with newer versions of building code, which generally improve energy efficiency with each new version. Further, the applicant proposes to achieve a minimum of LEED Silver Certification for the project; this process is specifically designed to avoid wasteful use of energy.

Because the Draft EIR provides a conservative analysis of energy impacts of the project in which existing on-site energy use is not subtracted for project energy use, and the Draft EIR does not compare project energy use to Alameda County energy use, no revisions to the Draft EIR are required in response to this comment.

Response 6.13

The commenter suggests that the City must conduct a new energy impact analysis using statistical calculations, which would equate to significant new information.

This comment pertains to Comment 6.10 through Comment 6.12. As discussed in Response 6.10 through 6.12, a new or revised energy impact analysis is not required for the project. No revisions to the Draft EIR are required in response to this comment.

Response 6.14

The commenter suggests that City has chosen to compare the energy use of the project to the energy use of Alameda County without providing justification for this comparison.

As discussed in Response 6.11, the Draft EIR does not evaluate the potential energy impacts of the project using a comparison with energy use in Alameda County. As discussed in Response 6.10, the analysis of energy impacts and determination of impact severity is based on the design of the project and mandatory compliance with regulatory requirements and building code specifically adopted to reduce wasteful energy consumption and increase energy efficiency.

Response 6.15

The commenter suggests that because the project would utilize natural gas and the BAAQMD CEQA Guidelines provide a threshold of significance for GHG impacts pertaining to the provision of natural gas, it could be argued that natural gas would also be inefficient energy use.

This comment discusses the GHG significance criteria adopted by the BAAQMD in their 2022 CEQA Guidelines. Please refer to Response 4.3 provided to Comment 4.3 in Letter 4. Response 4.3 provides a detailed discussion of how the BAAQMD CEQA Guidelines were used in determining the significance of GHG impacts of the project. As described in Response 4.3, the proposed project was determined to have potentially significant and unavoidable GHG impacts as the result of a long-term commitment to fossil fuels due to the provision of natural gas plumbing in the proposed building. However, the provision of natural gas cannot be assumed to also have a significant energy impact for this same reason, as the BAAQMD threshold is specifically for determining GHG impacts. Generally, natural gas is a more efficient heating fuel than electricity, but natural gas can generate more GHG emissions. Nonetheless, because natural gas is a more efficient heating fuel, and the commenter has not provided evidence that the operator would use natural gas wastefully and incur the related costs of such an illogical practice, there is no rationale for determining that the natural gas component of the project would result in inefficient energy use. For this reason, the provision of natural gas plumbing in the proposed building would not result in potentially significant impacts. No revisions to the Draft EIR are required in response to this comment.

Response 6.16

The commenter provides a list of mitigation measures that would reduce the energy impacts of the project.

Please refer to Response 6.10. As described therein, the energy use impacts of the project were determined to be less than significant. Because impacts would be less than significant, no mitigation measures are required to reduce impacts. No revisions to the Draft EIR are required in response to this comment.

Response 6.17

The commenter opines that the Draft EIR fails to provide mitigation measures for GHG impacts, and fails to properly analyze GHG impacts, such as quantifying emissions.

This comment is similar to Comment 4.2 and Comment 4.3 in Letter 4. Please refer to Response 4.2 and Response 4.3 for a response to this comment.

Response 6.18

The comment asserts that a GHG technical study has not been prepared for the project.

The commenter is correct. The City did not prepare a technical study evaluating the GHG impacts of the proposed project. The City did not prepare a technical study because it chose to use the BAAQMD 2022 CEQA Guidelines to determine the significance of GHG impacts. The BAAQMD 2022 CEQA Guidelines are based on the incorporation of design features into a project and not on technical modeling or quantification of GHG emissions. Please refer to Response 4.2 for a discussion of the BAAQMD 2022 CEQA Guidelines and how they were applied to the GHG analysis in the Draft EIR. No revisions to the Draft EIR are required in response to this comment.

Response 6.19

The commenter opines that the Draft EIR provides no thresholds of significance for GHG impacts and arbitrarily determines that impacts would be significant and unavoidable with no feasible mitigation measures.

This comment is similar to Comment 4.2, Comment 4.3, Comment 4.7, and Comment 4.8. Please refer to Response 4.2, Response 4.3, Response 4.7, and Response 4.8 for a response to this comment.

Response 6.20

The commenter asserts that the project would be in direct contravention of Senate Bill 32 GHG reduction goals.

As discussed in Response 4.2 for Comment Letter 4, the City chose to evaluate the significance of GHG impacts using significance thresholds adopted by the BAAQMD in their 2022 CEQA Guidelines. As described in detail on pages 6-3 and 6-4 of the BAAQMD 2022 CEQA Guidelines and summarized on pages 4.1-6 and 4.1-7 of the Draft EIR, for a project to have a less-than-significant impact related to operational GHG emissions, it must, at a minimum, incorporate certain project design elements or be consistent with a local GHG reduction strategy that meets *State CEQA Guidelines* Section 15183.5(b) requirements. The development of these thresholds was based on determining if a project would do its "fair share" at achieving the state's goal of carbon neutrality by 2045 pursuant to Executive Order B-55-18 (see page B-9 of Appendix B of the BAAQMD 2022 CEQA Guidelines). The BAAQMD thresholds of significance for land development projects are not based on SB 32. The BAAQMD thresholds of significance for general plans and long-term community-wide planning documents are based on consistency with SB 32, as well as achieving carbon neutrality by 2045. The proposed project is not a general plan or long-term community-wide plan. Therefore, the analysis of

GHG impacts is not based on consistency with SB 32. No revisions to the Draft EIR are required in response to this comment.

Response 6.21

The commenter states that the Draft EIR determined that the potentially significant GHG impacts of the project cannot be mitigated due to the decision of the 9th Circuit Court in *California Restaurant Association v. City of Berkeley*. The commenter suggests that the Draft EIR makes no effort to mitigate the GHG impacts through design features to reduce GHG emissions, which is a CEQA requirement.

This comment is similar to Comment 4.5 through Comment 4.9. Please refer to Response 4.5 through Response 4.9 for a response to this comment.

Response 6.22

The commenter suggests the project is inconsistent with the CARB 2022 Scoping Plan, citing a section of the 2022 Scoping Plan requiring all electric appliances in new buildings. The commenter opines that Draft EIR fails to hold the project to the standards of the CARB 2022 Scoping Plan through mitigation requirements.

This comment is similar to Comment 4.2 through Comment 4.9. Please refer to Response 4.2 through Response 4.9 for a response to this comment. Additionally, please refer to Response 6.20, above. Briefly, as described therein, the Draft EIR uses BAAQMD significance thresholds to evaluate GHG impacts. These thresholds are based on achieving carbon neutrality by 2045 pursuant to Executive Order B-55-18. The thresholds do account for the CARB 2022 Scoping Plan in that the thresholds include reducing VMT consistent with the Scoping Plan (see Response 4.2). As described on page 4.1-8 of the Draft EIR, the project would be consistent with the VMT portion of the BAAQMD threshold, thereby also satisfying the VMT reduction target of the CARB 2022 Scoping Plan. However, the project would include natural gas. As discussed in Response 4.5, the City is unable to eliminate natural gas from the project and instead require all electric appliances. For this reason, as described on pages 4.1-9 and 4.1-13 of the Draft EIR, the GHG impacts of the project would be significant and unavoidable.

Response 6.23

The commenter provides a list of potential mitigation measures that they assert would reduce the GHG emissions impacts of the project to the maximum extent feasible.

This comment is similar to Comment 4.2 through Comment 4.9. Please refer to Response 4.2 through Response 4.9 for a response to this comment.

Response 6.24

The comment suggests that Mitigation Measure BIO-1 in the Draft EIR is insufficient to reduce significant impacts to nesting migratory birds because it does not cover the potential nesting season of raptor species.

Potential impacts to nesting migratory birds are evaluated on page 51 of the Initial Study, which is provided as Appendix A to the Draft EIR. As discussed on page 51, the project would require the removal of five street trees, potentially impacting nesting birds that may use these trees. Implementation of Mitigation Measure BIO-1 is required. Mitigation Measure BIO-1 is provided on page 52 of the Initial Study, which is provided as Appendix A to the Draft EIR. As discussed on page 52 of the Initial Study, implementation of Mitigation Measure BIO-1 would reduce the potential for project construction activities to result in the loss of active bird nests through a pre-construction nesting bird survey and establishment of avoidance buffers around active nests, if present, during the general avian nesting season. Impacts related to nesting migratory birds would be less than significant with implementation of Mitigation Measure BIO-1.

The California Department of Fish & Wildlife (CDFW) defines the typical breeding season for native nesting birds as February 1 to September 1.[2] The general avian nesting season specified in Mitigation Measure BIO-1 is February 1 through September 15, which includes the entire breeding season specified by CDFW. The CDFW does provide slightly different breeding seasons for various raptor species. For example, CDFW describes the breeding season for eagles as December 30 through July 1. However, breeding seasons for raptors are not applicable to the proposed project, because the project site does not provide suitable nesting sites for raptors. The street trees that would be potentially removed during construction are approximately 30 to 40 feet tall, based on site photography. Buildings, power poles, and other development nearby often greatly exceed the height of these trees, making them less ideal for nesting raptors, which typically prefer high nesting sites. Additionally, the street trees are surrounded by industrial development is all directions with little habitat capable of supporting a prey population needed to support a nesting raptor pair. The open water of the San Francisco Bay is approximately a mile west of the site and does have various species of fish. However, raptor species that prefer fish, such as osprey, almost exclusively use high nesting sites.

For the reasons discussed in the prior paragraph, Mitigation Measure BIO-1 would reduce potential impacts to nesting migratory birds to a less than significant level because it would protect the species of birds with potential to occur in trees affected by the project. For clarification purposes, page 51 of the Initial Study, which is included as Appendix A to the Draft EIR, is revised as follows:

> The proposed project would involve construction work near street trees just off the project site near the driveway that connects to Hester Street which may affect protected nesting birds in existing trees. For example, construction noise could result in adult birds abandoning their nests. Project construction would also potentially require the removal of these trees, resulting in loss of nests if present. <u>These trees would not be suitable for raptor nest sites, because raptors that could occur in the area based on prey habitat would use higher nesting sites than offered by street trees. For example, the San Francisco Bay supports many fish species, a known prey for osprey. However, osprey prefer high nest sites that offer good visibility near water. However, these trees could be used as nest sites for numerous passerine birds, such as sparrows, robins, and other songbirds.</u> Impacts to migratory nesting birds would be potentially significant and implementation of Mitigation Measure BIO-1 is required.

No further revisions to the Draft EIR are required in response to this comment.

Response 6.25

The commenter summarizes the groundborne vibration impacts resulting from project construction and describes Mitigation Measure NOI-2 to reduce these impacts. The commenter asserts that the

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[2] California Department of Fish & Wildlife. N.D. CDFW's Conservation Measures for Biological Resources That May Be Affected by Program-level Actions: Appendix 1. Retrieved on September 17, 2024, from https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=73979&inline

Draft EIR must evaluate groundborne vibration levels at 15 feet or greater from the project site to determine if Mitigation Measure NOI-2 would be sufficient to reduce impacts.

The potential groundborne vibration impacts resulting from project construction activities are evaluated on pages 4.3-18 and 4.3-19 of the Draft EIR. As described therein, project construction activities would generate groundborne vibration, but the nearest residences are too far from the project site to exceed Caltrans's threshold of significance for human annoyance. However, as shown in Table 4.3-3 on page 4.3-19 of the Draft EIR, use of a vibratory roller would generate groundborne vibration at the existing industrial buildings approximately 10 feet away from the project site that exceeds the threshold for structural damage. Implementation of Mitigation Measure NOI-2 is required.

Mitigation Measure NOI-2 is provided on page 4.3-20 of the Draft EIR, and it requires the use of a static roller in lieu of a vibratory roller for paving activities within 15 feet of the existing off-site buildings to the north and west of the project site. As shown in Table 4.3-3 on page 4.3-19 of the Draft EIR, a static roller would generate groundborne vibrations of approximately 0.012 in/sec PPV at the nearest industrial buildings approximately 10 feet away from the project site. Groundborne vibration levels of 0.012 in/sec PPV would be below the threshold for structural damage, which is 0.5 in/sec PPV. Therefore, with implementation of Mitigation Measure NOI-2, groundborne vibration impacts of the project were determined to be less than significant, as discussed on page 4.3-19 of the Draft EIR.

In developing Mitigation Measure NOI-2, the City calculated vibration levels at various distances from the project site to determine the specific distance at which a static roller must be used in lieu of a vibratory roller. In this process, the City determined that 15 feet is the approximate distance at which the groundborne vibration levels resulting from the vibrator roller would drop below 0.5 in/sec PPV, which is the threshold for structural damage, which is 0.5 in/sec PPV. Therefore, it is unnecessary for the Draft EIR to include additional analysis of groundborne impacts of a vibratory roller at distances of 15 feet or greater in order to determine if Mitigation Measure NOI-2 is sufficient. No revisions to the Draft EIR are required in response to this comment.

Response 6.26

The commenter suggests that for reasons provided in their letter the Draft EIR violates CEQA and should be revised and recirculated.

As discussed in response 6.1 through 6.25, above, no revisions to the EIR are required in response to this comment letter, and recirculation is not required.

Response 6.Exhibit A

The commenter includes a letter report written by SWAPE that provides an assessment of how the GHG emissions of the project could be reduced with a requirement that the project workforce consist of local hires.

Exhibit A provides more detail or supporting information to earlier comments in this letter, specifically Comment 6.4, Comment 6.5, and Comment 6.7. Therefore, Response 6.4, Response 6.5, and Response 6.7 generally address comments or information presented in Exhibit A. No additional revisions to the Draft EIR are necessary in response to Exhibit A.

LETTER 7

PROLOGIS®

August 04, 2024

City of San Leandro
Community Development Department
835 East 14th Street
San Leandro, California 94577
Attn: Cindy Lemaire, AICP

Re: 880 Doolittle Drive Industrial Project – Comments to Draft EIR

Ms. Lemaire:

Prologis appreciates the City's commitment of time and resources in preparing the Draft EIR for our redevelopment project at 880 Doolittle Drive, which will modernize the site so that it can be marketed to a new generation of light industrial, R&D or other uses consistent with the General Industrial zone. The Prologis team has reviewed the Draft EIR and agrees with its analysis and findings. In addition, we provide the following comments to clarify the analysis in the Draft EIR. 7.1

In the Greenhouse Gas Emissions section, the Regulatory Setting (Draft EIR Section 4.1.2) should refer to CARB's 2022 Scoping Plan (AB 1279). The 2022 Scoping Plan is referenced in the Environmental Checklist (Draft EIR, Exhibit A). The Regulatory Setting in the Draft EIR, however, refers to CARB's 2017 scoping plan, which has been superseded. While this does not affect the analysis in the Draft EIR, the Regulatory Setting should be revised to cite to the 2022 Scoping Plan to ensure consistency with the Environmental Checklist in Exhibit A. 7.2

In the Transportation section, the Draft EIR notes that the City's 2020 VMT threshold is 16.3 miles per employee. The Draft EIR Impact Analysis (Impact TRA-1) should clarify that this threshold was established by applying a 15% reduction to the 2020 average VMT of 19.2 miles per employee, resulting in a threshold of 16.3 miles per employee. While the VMT threshold is discussed in the Regulatory Setting and Transportation Impact Analysis in Appendix C, this should also be noted in the Impact Analysis, to avoid confusion. 7.3

In the Alternatives section, the Draft EIR notes that eliminating natural gas utility connections could deter future tenants, as natural gas is still required for many manufacturing processes. Prologis agrees with this finding and notes that, in addition to direct manufacturing processes, natural gas is a primary energy source for many ancillary systems utilized in biotechnology, life sciences and research & development. An all-electric building is therefore not viable for many potential tenants in those sectors. 7.4 Prologis supports a comprehensive and phased approach to reducing greenhouse gas emissions. In 2022, Prologis announced its commitment to achieve carbon neutrality for all Scope 1, 2 and 3 emissions by 2040. Prologis has also set a goal of deploying 1 gigawatt of solar and storage capacity by 2025. Over the long-term, it is difficult to predict the most optimal energy sources that will advance Prologis' commitment to achieve net- 7.5

neutrality by 2040.[1] Natural gas connections over time could transition to renewable natural gas with significantly lower carbon-intensity, or hydrogen, or be completely phased out over time through the use of market-ready, all-electric fixtures. 7.5

Thank you for considering our comments and clarifications, and please do not hesitate to contact me if any further clarifications are needed in order to finalize the EIR for this project.

Regards,

Claudia Tarpin
Director, Development

CC (via email):

- Janet Galvez
  VP, Capital Deployment

- Bill Rose
  VP, Development Officer, Entitlement

- Matthew Sims
  VP, Development Officer

[1] https://www.prologis.com/about/news-press-releases/prologis-commits-net-zero-emissions-2040

Letter 7

COMMENTER: Claudia Tarpin, Prologis

DATE: August 4, 2024

Response 7.1

The commenter thanks the City for its work in preparing the Draft EIR and expresses agreement with the analysis.

No revisions to the Draft EIR are required in response to this comment.

Response 7.2

The commenter requests that Section 4.1, *Greenhouse Gas Emissions*, of the Draft EIR be revised to refer to the CARB 2022 Scoping Plan instead of the CARB 2019 Scoping Plan.

The commenter is correct that Section 4.1, *Greenhouse Gas Emissions*, of the Draft EIR does discuss regulatory setting as it pertains to GHG impacts, including the CARB Scoping Plan. However, as discussed on page 4.1-3 of the Draft EIR, the regulatory setting describes the CARB 2017 Scoping Plan and not the CARB 2019 Scoping Plan. Nonetheless, page 4.1-3 is revised to describe the CARB 2022 Scoping Plan, which is the most current version. Specifically, page 4.1-3 of the Draft EIR is revised as follows:

> On November 30, 2017, CARB released its 2017 Climate Change Scoping Plan (2017 Scoping Plan), which lays out the framework for achieving the 2030 reductions as established in SB 32 (and other regulations). The 2017 Scoping Plan identifies the GHG reductions needed by emissions sector to achieve a Statewide emissions level that is 40 percent below 1990 levels before 2030. Many of the programs require Statewide action, promulgated through regulation, and are outside the ability of substate jurisdictions to implement on their own accord. This is important to recognize in terms of GHG emissions efficiency and attaining GHG targets. The ability to attain targets will rely not only on transportation strategies (e.g., the SCS) but also on land use strategies implemented by local cities and counties (e.g., qualified GHG reduction plans) and controls and actions tied to economy-wide changes promulgated by the State.
>
> <u>The CARB 2022 Scoping Plan is the most current version. The CARB 2022 Scoping Plan for achieving Carbon Neutrality lays out a path to achieve AB 1279 targets and SB 32 (CARB 2022). The actions and outcomes in the 2022 Scoping Plan would achieve significant reductions in fossil fuel combustion by deploying clean technologies and fuels, further reductions in short-lived climate pollutants, support for sustainable development, increased action on natural and working lands to reduce emissions and sequester carbon, and the capture and storage of carbon.</u>

The provision of this additional information in the regulatory setting describing the CARB 2022 Scoping Plan does not affect the impact analysis or determinations in the Draft EIR. This is because the Draft EIR uses the BAAQMD 2022 CEQA Guidelines to analyze and determine the significance of GHG impacts, and the BAAQMD 2022 CEQA Guidelines are intended to align projects in the Bay Area with the applicable initiatives to reduce GHG emissions, including CARB scoping plans (See Response 4.2 for more detail). No additional revisions to the Draft EIR are necessary in response to this comment.

Response 7.3

The commenter requests that that the analysis for Impact TRA-1 in the Draft EIR be revised to briefly describe how the threshold of significance for VMT impacts was established. The commenter notes that this information is already provided earlier in Section 4.4, *Transportation*, of the Draft EIR.

In response to this comment, pages 4.4-6 and 4.4-7 of the Draft EIR are revised as follows:

> The project VMT of 15.34 miles per employee is below the 2020 VMT threshold of 16.3 miles per employee. <u>This threshold was established by applying a 15-percent reduction to the 2020 average VMT of 19.2 miles per employee.</u> Therefore, the proposed project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), as it pertains to VMT. Impacts would be less than significant.

The revisions to pages 4.4-6 and 4.4-7 do not affect the impact analysis or determinations in the Draft EIR. The revisions provide clarification on how the thresholds of significance were calculated for Impact TRA-1. No additional revisions to the Draft EIR are necessary in response to this comment.

Response 7.4

The commenter notes that Section 6, *Alternatives*, of the Draft EIR describes how natural gas is still required for some manufacturing processes and eliminating natural gas utility connections from the proposed building could deter future tenants. The commenter agrees with this and notes that, in addition to direct manufacturing processes, natural gas is a primary energy source for many ancillary systems utilized in biotechnology, life sciences and research and development.

This comment does not question the analysis or conclusions of the Draft EIR. Therefore, no revisions to the Draft EIR are necessary in response to this comment.

Response 7.5

The commenter explains the commitment Prologis (i.e., project applicant) has made to reducing GHG emissions, achieving carbon neutrality by 2040, and incorporating renewable energy, potentially phasing natural gas out over time.

This comment does not question the analysis or conclusions of the Draft EIR. Therefore, no revisions to the Draft EIR are necessary in response to this comment.

Pacific Gas and Electric Company
Plan Review Team
Land Management
PGEPlanReview@pge.com

LETTER 8

September 12, 2024

Cindy Lemaire, AICP, CNU-A, Senior Planner
Community Development Dept.
City of San Leandro
835 East 14th Street
San Leandro, CA 94577

Re: 880 Doolittle Dr. Industrial Project Draft Environmental Impact Report
880 Doolittle Drive, San Leandro, CA 94577; APN: 77A-0741-004-02 & 77A-0741-005-00

Dear Cindy,

Thank you for providing PG&E the opportunity to review the subject plans.

PG&E has no comment on the adequacy of the Environmental Impact Report. 8.1

However, the proposed 880 Doolittle Drive Industrial Project does impact PG&E's overhead electric distribution line constructed on a 10ft wide easement across both parcels and granted in an unrecorded easement on January 31, 1973. According to our records PG&E is already working with the applicant in regard to a relocation of the line to avoid the new construction. 8.2

The installation of new gas and electric facilities and/or relocation of existing PG&E facilities will be performed in accordance with common law or Rules and Tariffs as authorized by the California Public Utilities Commission. 8.3

If the project requires PG&E gas or electrical service in the future, please continue to work with PG&E's Service Planning department: https://www.pge.com/cco/. 8.4

As a reminder, before any digging or excavation occurs, please contact Underground Service Alert (USA) by dialing 811 a minimum of 2 working days prior to commencing any work. This free and independent service will ensure that all existing underground utilities are identified and marked on-site. 8.5

If you have any questions regarding our response, please contact the PG&E Plan Review Team at Vincent.Fazzi@pge.com

Pacific Gas and Electric Company

Sincerely,

Vince Fazzi

Vince Fazzi
Land Agent
Land Management Dept.
(916) 217-1057

Letter 8

COMMENTER: Vince Fazzi, Land Agent, Pacific Gas & Electric Company

DATE: September 12, 2024

Response 8.1

The commenter thanks the City for the opportunity to review the project plans and states that they have no comment on the adequacy of the Draft EIR.

No revisions to the Draft EIR are required in response to this comment.

Response 8.2

The commenter states that the project applicant is coordinating with PG&E on relocation of an existing overhead electric line on the project site.

No revisions to the Draft EIR are required in response to this comment. The City encourages PG&E and the project applicant to continue coordination on utility easements and relocations, as applicable.

Response 8.3

The commenter indicates that the installation of new gas and electric facilities and/or relocation of existing PG&E facilities must be performed in accordance with common law or Rules and Tariffs as authorized by the California Public Utilities Commission.

No revisions to the Draft EIR are required in response to this comment. The project applicant must comply with all existing regulations and laws applicable to the project, including those specific by the commenter.

Response 8.4

The commenter requests the continued coordination with PG&E occur if the project requires PG&E gas or electrical service in the future.

As described on page 2-14 of the Draft EIR, the project would require PG&E to provide both electric and natural gas. The City encourages the project applicant and PG&E to continue coordination on the provision of these services. No revisions to the Draft EIR are required in response to this comment.

Response 8.5

The commenter requests that the applicant utilize Underground Service Alert to identify and mark existing underground utilities at least 2 working days prior to ground disturbance for project construction.

No revisions to the Draft EIR are required in response to this comment. California Code 4216.2(b) requires that everyone must always call 8-1-1 (i.e., Underground Service Alert) at least two working days before beginning a digging job.

4 Revisions to the Draft EIR

This section presents specific changes to the text of the Draft EIR that have been made to clarify information presented in the Draft EIR. The changes in this section are in addition to the changes and revisions to the Draft EIR that have been made in response to the comments received on the Draft EIR, as presented above in Section 3, *Comments and Responses*. However, the revisions presented above in Section 3, are also shown below. These revisions do not comprise significant new information that would trigger Draft EIR recirculation pursuant to *State CEQA Guidelines* Section 15088.5. For example, they do not disclose a new or substantially more severe significant environmental impact, or a new feasible mitigation measure or alternative not proposed for adoption. Rather, the revisions correct or clarify information presented.

Where revisions to the main text are called for, the page and paragraph are set forth, followed by the appropriate revision. Added text is indicated with <u>underlined</u> text. Text deleted from the Draft EIR is shown in ~~strikethrough~~. Page numbers correspond to the page numbers of the Draft EIR.

Page 4.1-3 of the Draft EIR is revised as follows:

> On November 30, 2017, CARB released its 2017 Climate Change Scoping Plan (2017 Scoping Plan), which lays out the framework for achieving the 2030 reductions as established in SB 32 (and other regulations). The 2017 Scoping Plan identifies the GHG reductions needed by emissions sector to achieve a Statewide emissions level that is 40 percent below 1990 levels before 2030. Many of the programs require Statewide action, promulgated through regulation, and are outside the ability of substate jurisdictions to implement on their own accord. This is important to recognize in terms of GHG emissions efficiency and attaining GHG targets. The ability to attain targets will rely not only on transportation strategies (e.g., the SCS) but also on land use strategies implemented by local cities and counties (e.g., qualified GHG reduction plans) and controls and actions tied to economy-wide changes promulgated by the State.
>
> <u>The CARB 2022 Scoping Plan is the most current version. The CARB 2022 Scoping Plan for achieving Carbon Neutrality lays out a path to achieve AB 1279 targets and SB 32 (CARB 2022). The actions and outcomes in the 2022 Scoping Plan would achieve significant reductions in fossil fuel combustion by deploying clean technologies and fuels, further reductions in short-lived climate pollutants, support for sustainable development, increased action on natural and working lands to reduce emissions and sequester carbon, and the capture and storage of carbon</u>

Page 4.1-9 of the Draft EIR is revised as follows:

Mitigation Measures

The City is unable to implement mitigation to reduce this significant impact <u>to levels that would be less than significant</u> based on a recent court case titled California Restaurant Association v. City of Berkeley. Briefly, in this case, the California Restaurant Association sued Berkeley in the U.S. District Court for the Northern District of California, arguing among other things that the federal Energy Policy and Conservation Act (EPCA) preempted the City’s ordinance banning natural gas in new buildings. The District Court dismissed the California Restaurant Association’s challenge. However, the Ninth Circuit reversed the District Court, holding that EPCA expressly preempts state and local regulations concerning the energy use of many natural gas appliances. The Ninth Circuit concluded that EPCA preempted Berkeley's ban of natural gas, because it prohibited the onsite installation of natural gas infrastructure necessary to support natural gas appliances covered under the EPCA. Accordingly, based on the decision of the Ninth Circuit in California Restaurant Association v. City of Berkeley, the City of San Leandro cannot require the project applicant to eliminate natural gas from the proposed project. No other mitigation is available to eliminate the use of natural gas in the proposed project. See Section 6, *Alternatives*, which includes project alternatives that do not include natural gas connections.

While the City is unable to require mitigation eliminating natural gas, this City has developed Mitigation Measure GHG-1 to reduce the use of natural gas to the extent possible.

GHG-1 Natural Gas Use Reduction

The building and its appliances (space heating, hot water heating, office cooking facilities, etc.) shall be all electric. Natural gas plumbing shall be permitted, activated and operated only for specific industrial or manufacturing processes that require natural gas as a critical component to that process or processes. The final site plans shall note that building appliances must be all electric. Building tenants shall be made aware of the restricted use of natural gas through language in the leasing and/or deed documentation.

Significance After Mitigation

Implementation of Mitigation Measure GHG-1 would reduce the natural gas consumption as routine part of building operations, but it would not eliminate natural gas infrastructure from the project. Because the proposed project would include natural gas plumbing and there is no feasible mitigation to reduce potentially significant impacts resulting from the provision of this natural gas plumbing ~~GHG emissions of the project~~, impacts would remain significant and unavoidable.

Page 4.1-12 of the Draft EIR is revised as follows:

> The proposed project would be inconsistent with ~~policies~~ measures BE-1 and BE-2 because the proposed project would include new natural gas connections. Accordingly, the proposed project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions, such as General Plan Policy EH-3.4 and the City's Climate Action Plan. Impacts would be potentially significant, and mitigation is required.

Page 4.1-13 of the Draft EIR is revised as follows:

> A project's environmental impacts are "cumulatively considerable" if the "incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects" (*CEQA Guidelines* Section 15065[a][3]). While greenhouse gas emissions are a global occurrence and climate change affects the entire planet, it is impractical to extend the geographic scope for this cumulative impacts analysis to the entire planet. Additionally, the geographic scope for this analysis need only to include the San Franscisco Bay Area due to the abundance or GHG emission sources, including residential, commercial, industrial, and mobile sources. Combined, the GHG emissions from these sources have resulted in a significant cumulative impact related to climate change. The proposed project would result in additional GHG emissions, especially due to the combustion of natural gas that is included

> in the natural project. The other reasonably foreseeable future projects listed in Table 3.1 of this EIR would also generate GHG emissions. Accordingly, the cumulative GHG impacts of the proposed project would be significant. As described in Section 4.1.3, there are no feasible mitigation measures to reduce the significant GHG impacts of the proposed project to levels that would be less than significant. Implementation of Mitigation Measure GHG-1 is required, but would not eliminate natural gas from the proposed building. Therefore, the project's contribution to significant cumulative GHG impacts would be cumulatively considerable.

Pages 4.4-6 and 4.4-7 of the Draft EIR are revised as follows:

> The project VMT of 15.34 miles per employee is below the 2020 VMT threshold of 16.3 miles per employee. This threshold was established by applying a 15-percent reduction to the 2020 average VMT of 19.2 miles per employee. Therefore, the proposed project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b), as it pertains to VMT. Impacts would be less than significant.

page 51 of the Initial Study is revised as follows:

> The proposed project would involve construction work near street trees just off the project site near the driveway that connects to Hester Street which may affect protected nesting birds in existing trees. For example, construction noise could result in adult birds abandoning their nests. Project construction would also potentially require the removal of these trees, resulting in loss of nests if present. These trees would not be suitable for raptor nest sites, because raptors that could occur in the area based on prey habitat would use higher nesting sites than offered by street trees. For example, the San Francisco Bay supports many fish species, a known prey for osprey. However, osprey prefer high nest sites that offer good visibility near water. However, these trees could be used as nest sites for numerous passerine birds, such as sparrows, robins, and other songbirds. Impacts to migratory nesting birds would be potentially significant and implementation of Mitigation Measure BIO-1 is required.

Page 84 of the Initial Study is revised as follows:

> The project site is approximately 2.5 miles east of Oakland International Airport and 6.6 miles north of the Hayward Executive Airport. The project site is within the Oakland Airport Influence Area ~~but is not within a noise or safety compatibility zone of the Oakland Airport. The project site~~ and is located primarily in the Outer Approach/Departure Zone (Zone 4), where warehouses and distribution facilities are a compatible use assuming employment does not exceed 100 employees per acre (Alameda County Community Development Agency 2010; Alameda County Airport Land Use Commission 2010). The project site is also partially within the Traffic Pattern Zone (Zone 6). Warehouses are a compatible land use within Zone 6 with no limits on employment density.

Page 11 of the Health Risk Assessment, which is provided as Appendix B to the Initial Study, is revised as follows:

> According to CalEnviroScreen, the Project site ~~is located within Census Tract 6001441503, which is within the 40-45 percentile. However,~~ and the nearest sensitive receptors to the east are located within the ~~25-30~~ >80-90 percentile ~~(Census Tract 6001443321) and 15-20 percentile~~ (Census Tract ~~6001443322~~ 6001432400).

The Draft EIR is revised to include Appendix G, Federal Aviation Administration No Hazard Determination, as a new appendix as follow:

Appendix G

Federal Aviation Administration No Hazard Determination

Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2022-AWP-14720-OE

Issued Date: 10/15/2022

Sindia Maya
Kimley-Horn
555 Capitol Mall
Sacramento, CA 95814

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building South East Corner of Distribution Facility
Location:	Oakland, CA
Latitude:	37-43-12.00N NAD 83
Longitude:	122-11-11.40W
Heights:	17 feet site elevation (SE) 50 feet above ground level (AGL) 67 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M.

This determination expires on 04/15/2024 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.This determination includes all previously filed frequencies and power for this structure.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

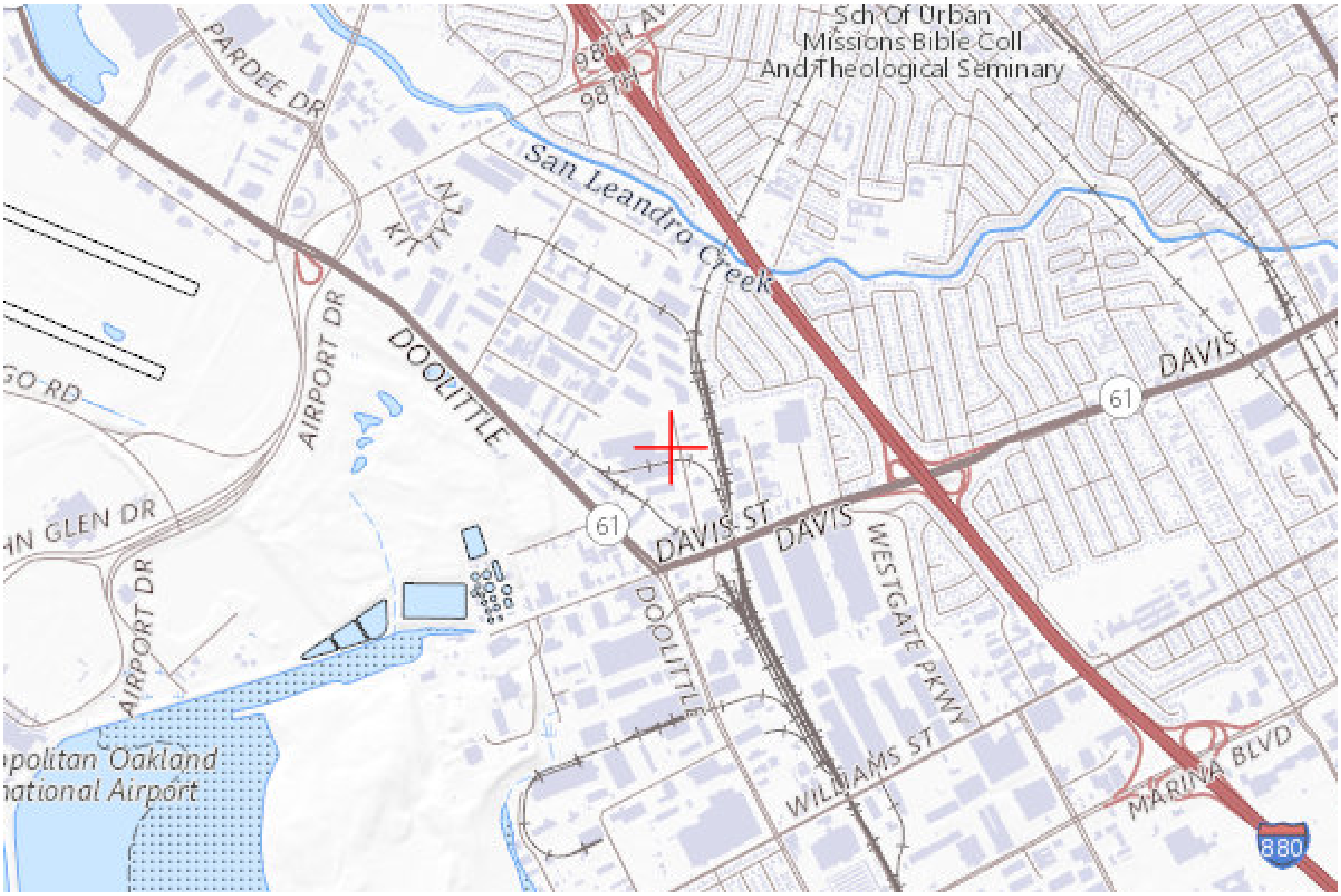
This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (816) 329-2528, or cindy.whitten@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2022-AWP-14720-OE.

Signature Control No: 545518138-557862471 (DNE)
Cindy Whitten
Supervisor

Attachment(s)
Map(s)

TOPO Map for ASN 2022-AWP-14720-OE



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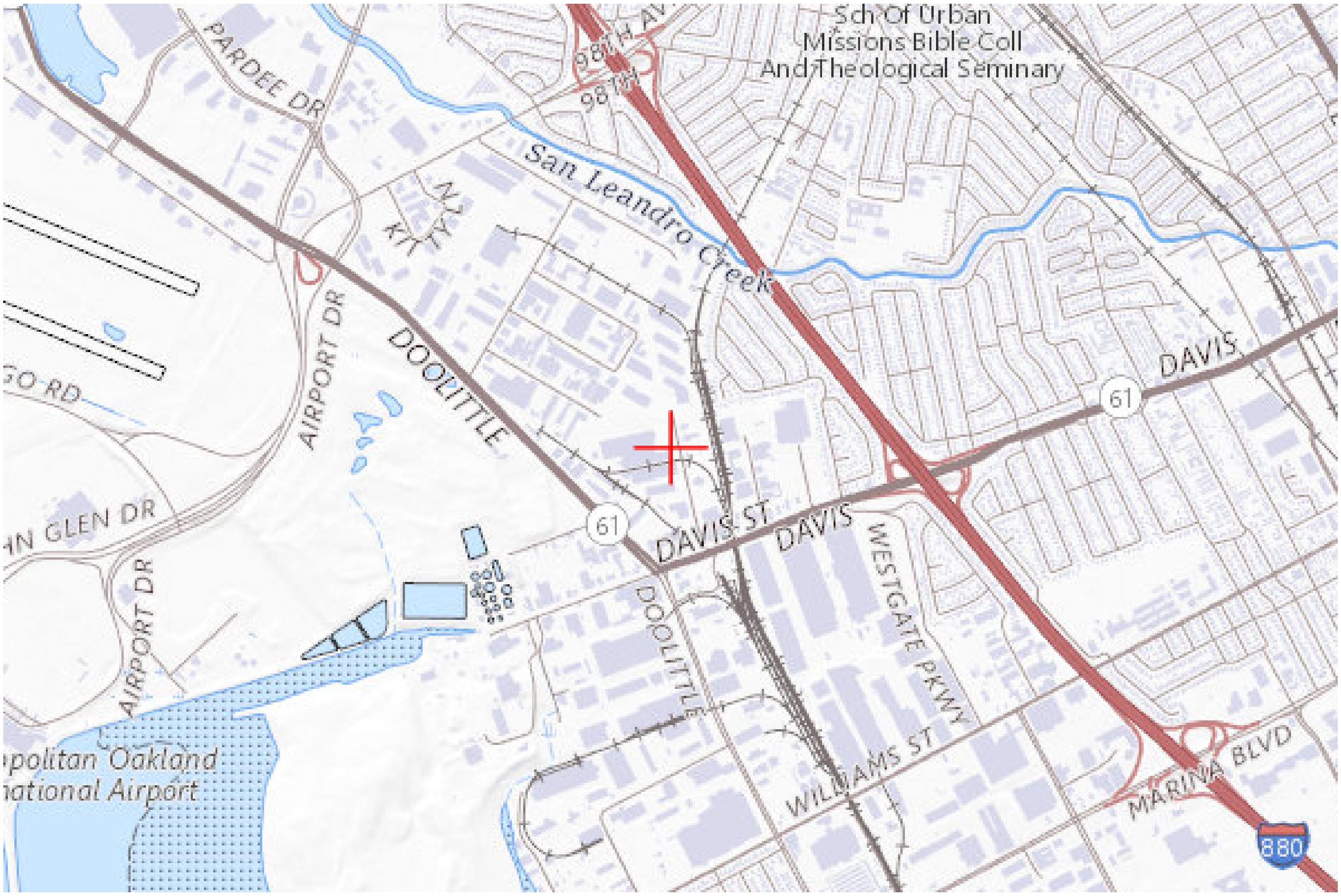

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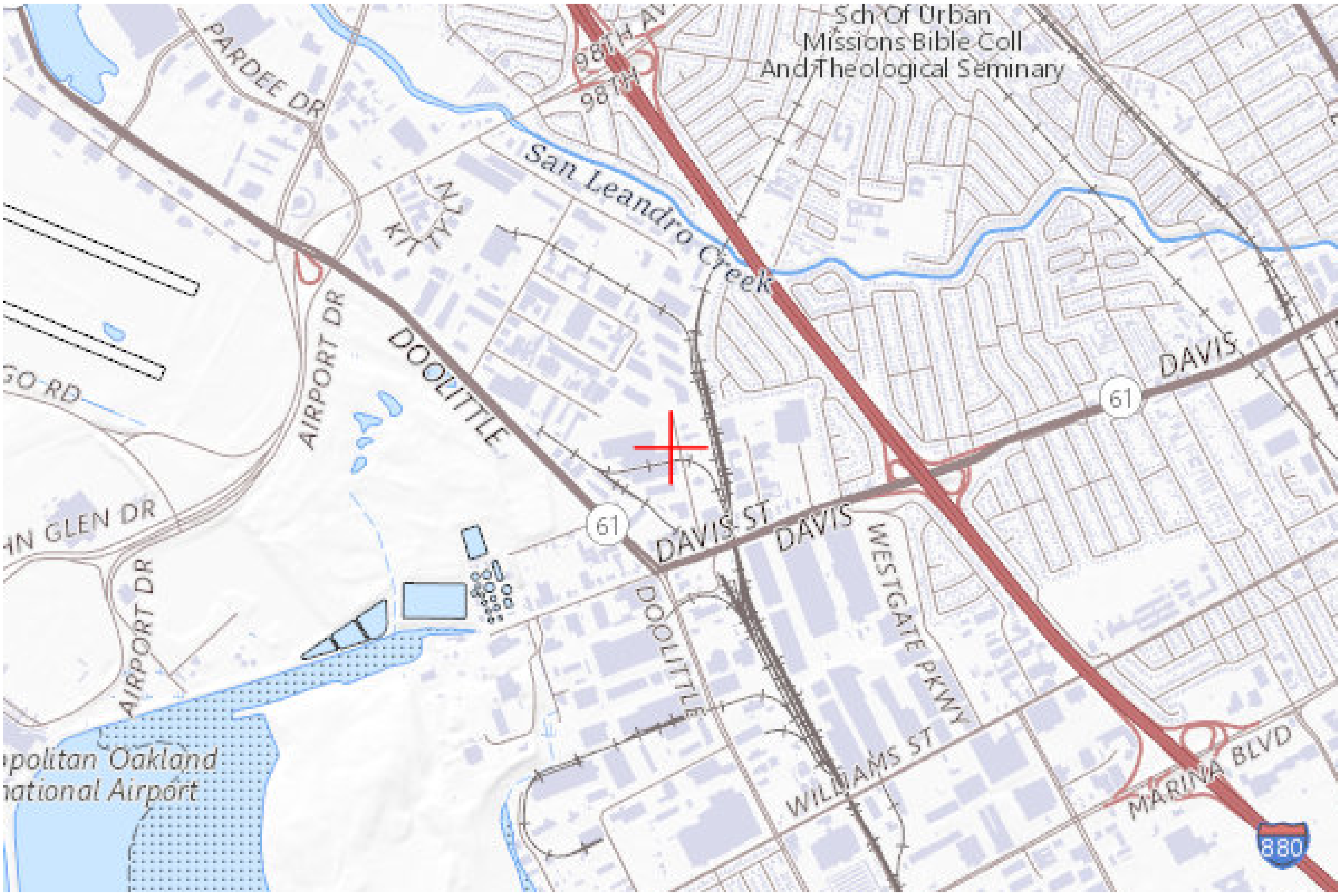

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