From: Liao, William <WLiao@socalgas.com>
Sent: Thursday, October 2, 2025 11:22 AM
To: Mcpherson, Sean <Sean.McPherson@cityofrc.us>
Cc: SCG SE Region Redlands Utility Request <SCGSERegionRedlandsUtilityRequest@semprautilities.com>
Subject: FW: Arrow Commerce Center Project

CAUTION: This email is from outside our Corporate network. Do not click links or open attachments unless you recognize the sender and can confirm the content is safe.

Hi Sean.

I just reviewed your letter regarding the Arrow Commerce Center Project at Arrow and Juneberry.

1-1

SoCalGas appears to have some existing medium- and high-pressure facilities in easements within the project area, as well as high-pressure and transmission facilities within the Arrow Route right of way.

Please help us ensure everyone's safety and have developers contact 811 / DigAlert prior to any excavation and/or demolition activities so we can get out to Locate & Mark out our facilities.

1-2

If developer needs gas, please have them reach out to our Builder Services group as soon as practicable to begin the application process, at Builder Services | SoCalGas.

Please let me know if you have any questions.

Will Liao
Region Planning Supervisor
Redlands HQ / Southeast Region
Mobile: 840-213-5899

STATE OF CALIFORNIA GAVIN NEWSOM, *Governor*

PUBLIC UTILITIES COMMISSION
320 WEST 4TH STREET, SUITE 500
LOS ANGELES, CA 90013

October 24, 2025 ENVR 20251000007

Sean McPherson
Principal Planner
City of Rancho Cucamonga
10500 Civic Center Drive
Rancho Cucamonga, CA 91730

Re: Arrow Commerce Center Project SCH 2023110033 – *Draft Environmental Impact Report (DEIR)*

Dear Sean McPherson,

2-1 The California Public Utilities Commission (Commission/CPUC) has jurisdiction over rail crossings (crossings) in California. The CPUC ensures that crossings are safely designed, constructed, and maintained. The Commission's Rail Crossings Engineering Branch (RCEB) is in receipt of the *Final Document (FIN)* for the proposed Newcastle Arrow Route Project. The City of Rancho Cucamonga (City) is the lead agency.

The project site is located at 12451 Arrow Route in the city of Rancho Cucamonga, bounded by Arrow Route Road to the north, industrial land uses to the east, the Southern California Regional Rail Authority (SCRRA) San Gabriel subdivision to the south, and industrial manufacturing and undeveloped land uses to the west). The site can be accessed from two routes, one of which crosses an at-grade highway-rail crossings along the SCRRA San Gabriel subdivision; Etiwanda Avenue (DOT# 026151P, CPUC# 101SG-44.14).

2-2 The Etiwanda Avenue at-grade highway-rail crossing (Crossing) consists of a 2-lane asphalt roadway with active railroad warning devices and is currently planned to be grade separated. The City has plans to grade separate the Crossing, which was authorized by RCEB under XREQ 20221200001 on December 20, 2022. Per the request submitted by the City, the Project was intended to reduce congestion and mitigate future growth impacts to alleviate delays and queuing that currently exist at the Crossing and along Etiwanda Avenue.

As the grade separation Project has not yet commenced due to lack of construction funding, RCEB recommends that the City review the area and provide any mitigations measures for the increase in vehicular activity (particularly trucks) from this and other new adjacent developments. Mitigations measures to consider can be, but not be limited to, requiring trucks to utilize Foothill Blvd to access the freeway and avoid the Crossing or improving the Crossing in the interim condition by adding an additional lane to reduce the single lane bottleneck at the Crossing for both the northbound and southbound directions. These mitigation measures can be accomplished through a capital project funded by the City or as a condition of approval for the development. Additionally, the City should consider that the development help partially fund the grade separation since their development will significantly increase the volume of vehicles, particular large semi trucks, over the Crossing.

2-3 It is also recommended that consideration be taken to seal off access to the railroad corridor south of the newly proposed roadway designated as "New Public Street A", to deter any trespassing that leads to the active SCRRA San Gabriel subdivision mainline tracks. Parking should not be allowed on the south side adjacent to the railroad corridor, unless a physical curb is installed to define the limits of the roadway and fencing is installed along the roadway to prevent vehicle from parking too close to the tracks and within SCRRA's right-of-way. Guardrail should be evaluated and considered on "New Public Street A" where "New Public Street B", Yellow Wood Rd, and "New Public Street F" intersects to prevent any errant vehicles from ending up on the SCRRA tracks. Adequate lighting should also be provided at those locations to provide visibility of the roadway during the evening or times of low visibility.

2-4 Any proposed new crossing construction project will require authorization from the CPUC and must also conform to the goals of the CPUC's Environmental and Social Justice Action Plan. This includes improving safety and access to transportation, improving local air quality and public health, and expanding outreach and public participation opportunities in disadvantaged communities. For more information, please visit https://www.cpuc.ca.gov/esjactionplan.

RCEB staff is available to discuss any potential safety impacts or concerns at the crossings and address any questions from the County.

If you have any questions, please contact Sergio Licon at (213) 503-4866, or sergio.licon@cpuc.ca.gov.

Sincerely,

Anh Truong, PE
Senior Utilities Engineer (Supervisor)
Rail Crossings Engineering Branch
Rail Safety Division

cc: State Clearinghouse, state.clearinghouse@opr.ca.gov
Maria Leible, Metrolink, LeibleM@scrra.net
Marlie Long, Ascent, marlie.long@ascent.inc

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SENT VIA E-MAIL: November 13, 2025

Sean.McPherson@cityofrc.us
Sean McPherson, Principal Planner
City of Rancho Cucamonga, Planning Department
10500 Civic Center Dr
Rancho Cucamonga, CA 91730

Draft Environmental Impact Report (EIR) for the Proposed Arrow Commerce Center Project (Proposed Project) (SCH No.: 2023110033)

South Coast Air Quality Management District (South Coast AQMD) staff appreciates the opportunity to comment on the above-mentioned document. The City of Rancho Cucamonga is the California Environmental Quality Act (CEQA) Lead Agency for the Proposed Project. To provide context, South Coast AQMD staff have provided a brief summary of the project information and prepared the following comments, organized by topic of concern.

Summary of Project Information in the Draft EIR

A1-1 Based on the Draft EIR, the Proposed Project consists of the demolition and site clearing of existing paved surfaces, followed by the construction and operation of five warehouse distribution buildings.[1] The Proposed Project would result in the development of approximately 1,830,719 gross square feet of industrial warehouse space[2] on a 94-acre site[3] located at 12451 Arrow Route Road.[4] At full buildout, the Proposed Project would include 282 loading docks[5] and would generate an estimated 413 heavy-duty truck trips, 155 medium-duty truck trips, and 116 light-duty truck trips per day, for a total of approximately 684 daily truck trips during operation.[6] Of the total truck trips, approximately 388 would involve vehicles equipped with transport refrigeration units (TRUs).[7] Approximately 10 percent of the total building floor area would be designated for cold storage use.[8] Based on a review of an aerial photograph, the nearest sensitive receptors (i.e., residential uses) are located approximately 1,600 feet northeast of the Proposed Project site. Construction activities are anticipated to occur over approximately 18 months, beginning in January 2026 and concluding in July 2027.[9]

[1] Draft EIR. p. 2-14.
[2] *Ibid*.
[3] *Ibid*. p. 3.10-3.
[4] *Ibid*. p. ES-1.
[5] *Ibid*. p. 2-31.
[6] *Ibid*. p. 3.2-18.
[7] *Ibid*. p. 3-2-19.
[8] *Ibid*. p. 2-17.
[9] *Ibid*. p. 2-35.

South Coast AQMD Comments

Potentially Underestimated Construction Emissions

Chapter 2 (Project Description) of the Draft EIR acknowledges that recent and ongoing site investigations have identified multiple areas where contaminant concentrations exceed industrial screening levels. Detected contaminants include volatile organic compounds (VOCs) in soil vapor, diesel range organics (DRO), and polychlorinated biphenyls (PCBs) in shallow soils.[10] Approximately 3,500 cubic yards of soil are anticipated to require removal during grading activities.[11] Additionally, Section 3.8 (Hazards and Hazardous Materials) identifies five distinct Areas of Concern (AOCs)[12]:

- AOC-1: Soils containing total petroleum hydrocarbons (TPH) as DRO;
- AOC-2: Shallow soils with elevated concentrations of metals (lead and cadmium);
- AOC-3: Shallow soils with elevated arsenic concentrations;
- AOC-4: Soils, concrete, and asphalt containing PCBs; and
- AOC-5: Soil vapor containing VOCs.

A1-2

Although Mitigation Measure (MM) 3.8-2 requires implementation of a Remedial Action Plan prior to construction,[13] the Draft EIR does not include an evaluation of potential air quality impacts associated with cleanup and remediation activities. These activities could result in emissions of fugitive dust, VOCs, and other hazardous air pollutants during the disturbance, excavation, handling, or treatment of contaminated materials. Given the potential for contaminated soil disturbance, it is recommended that the Lead Agency review and ensure compliance with all applicable South Coast Air Quality Management District (South Coast AQMD) regulations, specifically Rule 1166 (Volatile Organic Compound Emissions from Decontamination of Soil)[14] and Rule 1466 (Control of Particulate Emissions from Soils with Toxic Air Contaminants).[15] Adherence to these rules will ensure that potential emissions of VOCs and toxic particulates are effectively minimized and controlled in accordance with South Coast AQMD requirements.

A1-3

Cleanup activities will likely involve the use of heavy-duty, diesel-fueled trucks for soil export and result in emissions from truck hauling activities and vehicle trips by workers that will be required to conduct cleanup/remediation activities. Additionally, the cleanup/remediation activities will likely require the use of additional equipment that may be different from typical equipment for grading and site preparation for construction. Based on the emission calculations from the California Emissions Estimator Model (CalEEMod) detailed report, a one-way truck trip length of 20 miles was relied upon to quantify the construction emissions from hauling activities. If the cleanup/remediation activities include the removal and disposal of contaminated soil, depending on the type of contamination, contaminated soil may need to be transported to a permitted hazardous waste disposal facility located outside San Bernardino County, which could require a one-way trip that would have a substantially greater travel distance beyond 20 miles.

[10] *Ibid*. p. 2-4.
[11] *Ibid*. p. 2-36.
[12] *Ibid*. p. 3.8-10.
[13] *Ibid*. p. 3-8-15.
[14] South Coast AQMD, Rule 1166 available at https://www.aqmd.gov/docs/default-source/rule-book/reg-xi/rule-1166.pdf
[15] South Coast AQMD, Rule 1466 available at https://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1466.pdf

A1-3 continued

To ensure an accurate quantification of construction-related emissions, including the cleanup activities, particularly for regional criteria pollutants and greenhouse gases, the Lead Agency is recommended to revise the CalEEMod[16] model inputs to reflect the actual distance to a specified permitted hazardous waste disposal facility. The selected trip length should be clearly disclosed and explained in the Final EIR. Should the Lead Agency elect not to revise the 20-mile haul distance, a detailed rationale supported by substantial evidence in the administrative record must be provided to demonstrate the appropriateness of the assumption in the context of the project-specific conditions.

Inappropriate Use of South Coast AQMD's Mass Rate Localized Significance Threshold Look-Up Table to Analyze the Proposed Project's Localized Air Quality Impact

A1-4

The analysis of localized significance thresholds (LSTs) in the Draft EIR appears to inappropriately rely on the South Coast AQMD LST screening tables to assess localized air quality impacts associated with both construction and operational activities. However, as outlined in Table 3-2 of the South Coast AQMD Final LST Methodology guidance,[17] the screening tables are not intended for projects with a disturbed area exceeding five acres. Given that the Proposed Project encompasses approximately 94 acres, the reliance on the screening tables is inappropriate because the localized pollutant concentrations are likely underestimated.

To ensure an accurate and technically robust assessment of potential localized air quality impacts, the Lead Agency is recommended to 1) conduct project-specific air dispersion modeling, which quantifies the concentrations of criteria pollutants at sensitive receptor locations during both the construction and operational phases; and 2) incorporate the results into the Final EIR.

Truck Idling Duration and Emissions Modeling

A1-5

According to the technical file provided by the Lead Agency labeled *Rancho Trucks Mass Emissions - Site 1*, an assumption of 15 minutes of idling per truck per day was used to estimate diesel particulate matter (DPM) emissions for the health risk assessment (HRA).[18] However, the actual idling times may be longer in duration since the Proposed Project is anticipated to involve a total of 684 truck trips per day. Moreover, it is reasonable to expect that individual trucks may experience extended periods of idling due to on-site queuing, security checks, staging, loading, and unloading operations, among other factors, particularly during peak hours or in congested circulation areas. As such, a 15-minute idling duration may underestimate actual on-site idling behavior and, consequently, DPM emissions, which are a key contributor to localized health risks.

While the California Air Resources Board (CARB) limits diesel truck idling to five minutes as set forth in the Airborne Toxic Control Measure (ATCM), an exemption from this requirement is allowed for trucks equipped with engines that meet the optional low-NOx idle emission standard, which is typically applicable to model year 2008 and newer trucks. These vehicles, often referred to as "clean idle" certified, are permitted to idle longer than five minutes when situated more than

[16] CalEEMod free of charge available at https://www.caleemod.com/
[17] South Coast AQMD's Final LST Methodology available at https://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf
[18] Provided Technical File labeled Rancho Trucks Mass Emissions - Site 1.

A1-5 Continued

100 feet from sensitive land uses such as homes and schools.[19] Furthermore, CARB's EMFAC2021 Volume III Technical Document (Table 4.4.2-5) indicates that heavy-duty trucks may idle for up to five hours at a single location under certain conditions.[20] For these aforementioned reasons, as a practical matter, the idling duration for onsite heavy-duty trucks visiting the Proposed Project site could idle for a much longer duration than what was analyzed in the Draft EIR. Thus, the HRA may have substantially underestimated the full extent of operational health risks associated with the DPM emissions from the anticipated onsite heavy-duty truck activities.

Accurate characterization of idling activity is essential to fully assess the potential health risk impacts, particularly for nearby sensitive receptors. Therefore, to ensure the HRA provides an accurate and health-protective estimate of potential exposure, the Lead Agency is recommended to either: 1) revise the operational emissions modeling in the Final EIR to assume a minimum of 30 minutes of idling per truck per day, unless site-specific data or operational constraints justify a shorter duration; or 2) provide empirical evidence, such as facility-specific queuing and processing time studies, vehicle circulation modeling, or comparable industry data, to substantiate the 15-minute assumption as representative of expected operations of the Proposed Project.

Outdated Meteorological Data in the HRA Modeling

Section 3.2 (Air Quality) of the Draft EIR indicates that the representative meteorological station for the HRA is assumed to be the Fontana station (FONT).[21] In addition, based on the technical files provided by the Lead Agency, the MET data used in modeling is the FONT version 9.

It should be noted that this data corresponds to Version 9 of South Coast AQMD's AERMOD-ready MET dataset, which is no longer available or recommended for use. South Coast AQMD released an updated version of AERMOD-ready meteorological data (Version 11) in October 2024.[22] This updated dataset was developed using the U.S. EPA's AERMET processor (Version 22112), along with AERMINUTE (Version 15272) and AERSURFACE (Version 20060), and reflects current regulatory guidance and processing methodologies.

A1-6

To ensure technical accuracy, transparency, and consistency with the current South Coast AQMD recommendations, the Lead Agency is recommended to:

- Reassess the selection of meteorological data using the latest Version 11 dataset;
- Revise the HRA modeling inputs accordingly; and
- Include updated air quality modeling results in the Final EIR

This approach will ensure that air dispersion modeling is based on the most recent and appropriate meteorological data, thereby supporting a robust and defensible environmental analysis.

[19] CARB, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling was promulgated in Chapter 13 of the California Code of Regulations, Section 2485: Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling, https://ww2.arb.ca.gov/sites/default/files/2022-06/13_CCR_2485_OAL_06222022-2_ADA_06272022_0.pdf

[20] CARB, EMFAC2021 Volume III Technical Document, Table 4.4.2-5, p. 161., available at https://ww2.arb.ca.gov/sites/default/files/2021-03/emfac2021_volume_3_technical_document.pdf

[21] *Ibid*. p. 3.2-21.

[22] South Coast AQMD AERMOD-Ready MET Data Files available at https://www.aqmd.gov/assets/aermet/AERMET_files_And_HRA_Tool.html

Underestimation of Ground-Level Pollutants Near Buildings in HRA

South Coast AQMD staff's review of the air dispersion modeling files indicates that the industrial buildings were not incorporated into the building downwash component of the AERMOD dispersion model for the operational scenario. Excluding building downwash can lead to an underestimation of ground-level pollutant concentrations in the vicinity of on-site structures. Therefore, the Lead Agency is recommended to incorporate all relevant industrial buildings into the building downwash analysis to more accurately characterize ground-level pollutant concentrations and include the updated modeling results and findings in the Final EIR.

A1-7

Additional Recommended Air Quality and Greenhouse Gas Mitigation Measures and Project Design Features for Consideration

CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized to minimize or eliminate any significant adverse air quality impacts. To further reduce the Proposed Project's air quality impacts, the following mitigation measures and project design considerations are recommended to be incorporated into the Final EIR.

Mitigation Measures to Reduce Operational Air Quality Impacts from Mobile Sources

1. Require zero-emission (ZE) or near-zero emission (NZE) on-road haul trucks, such as heavy-duty trucks with natural gas engines that meet the CARB's adopted optional NOx emissions standard at 0.02 grams per brake horsepower-hour (g/bhp-hr), if and when feasible.

   Note: Given CARB's clean truck rules and regulations aiming to accelerate the utilization and market penetration of ZE and NZE trucks, such as the Advanced Clean Trucks Rule and the Heavy-duty Low NOx Omnibus Regulation, ZE and NZE trucks will become increasingly more available for use.

A1-8

2. Require a phase-in schedule to incentivize the use of cleaner operating trucks to reduce any significant adverse air quality impacts.
   Note: South Coast AQMD staff are available to discuss the availability of current and upcoming truck technologies and incentive programs with the Lead Agency.

3. Limit the daily number of trucks allowed at the Proposed Project to levels analyzed in the Final EIR. If higher daily truck volumes are anticipated to visit the site, the Lead Agency should commit to re-evaluating the Proposed Project through CEQA prior to allowing this higher activity level.

4. Provide electric vehicle (EV) charging stations or, at a minimum, provide electrical infrastructure, and electrical panels should be appropriately sized. Electrical hookups should be provided for truckers to plug in any onboard auxiliary equipment.

Mitigation Measures to Reduce Operational Air Quality Impacts from Other Area Sources

A1-9

1. Maximize the use of solar energy by installing solar energy arrays.

A1-9 continud

2. Use light-colored paving and roofing materials.

3. Utilize only Energy Star heating, cooling, and lighting devices and appliances.

Design Considerations for Reducing Air Quality and Health Risk Impacts

A1-10

1. Clearly mark truck routes with trailblazer signs so that trucks will not travel next to or near sensitive land uses (e.g., residences, schools, daycare centers, etc.).

2. Design the Proposed Project such that truck entrances and exits are not facing sensitive receptors, and trucks will not travel past sensitive land uses to enter or leave the Proposed Project site.

3. Design the Proposed Project such that any truck check-in point is inside the Proposed Project site to ensure no trucks are queuing outside.

4. Design the Proposed Project to ensure that truck traffic inside the Proposed Project site is as far away as feasible from sensitive receptors.

5. Restrict overnight truck parking in sensitive land uses by providing overnight truck parking inside the Proposed Project site.

A1-11

Lastly, the South Coast AQMD also suggests that the Lead Agency conduct a review of the following references and incorporate additional mitigation measures as applicable to the Proposed Project in the Final EIR:

1. State of California – Department of Justice: Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act[23]

2. South Coast AQMD 2022 Air Quality Management Plan,[24] specifically:

   a) Appendix IV-A – South Coast AQMD's Stationary and Mobile Source Control Measures

   b) Appendix IV-B – CARB's Strategy for South Coast

   c) Appendix IV-C – SCAG's Regional Transportation Strategy and Control Measure

3. United States Environmental Protection Agency (U.S. EPA) Transportation, Air Quality, and Climate Change.[25]

[23] State of California – Department of Justice, Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act available at https://oag.ca.gov/system/files/media/warehouse-best-practices.pdf
[24] South Coast AQMD, 2022 Air Quality Management Plan (AQMP) available at http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan
[25] United States Environmental Protection Agency (U.S. EPA) Transportation, Air Quality, and Climate Change available at https://www.epa.gov/transportation-air-pollution-and-climate-change

Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program

A1-12

On May 7, 2021, South Coast AQMD's Governing Board adopted Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program,[26] and Rule 316 – Fees for Rule 2305.[27] Rules 2305 and 316 are new rules that will reduce regional and local emissions of nitrogen oxides (NOx) and particulate matter (PM), including diesel PM. These emission reductions will reduce public health impacts for communities located near warehouses from mobile sources that are associated with warehouse activities. Also, the emission reductions will help the region attain federal and state ambient air quality standards. Rule 2305 applies to owners and operators of warehouses greater than or equal to 100,000 square feet. Under Rule 2305, operators are subject to an annual WAIRE Points Compliance Obligation that is calculated based on the annual number of truck trips to the warehouse. WAIRE Points can be earned by implementing actions in a prescribed menu in Rule 2305, implementing a site-specific custom plan, or paying a mitigation fee. Warehouse owners are only required to submit limited information reports, but they can opt to earn Points on behalf of their tenants if they so choose, because certain actions to reduce emissions may be better achieved at the warehouse development phase, for instance, the installation of solar and charging infrastructure. Rule 316 is a companion fee rule for Rule 2305 to allow South Coast AQMD to recover costs associated with Rule 2305 compliance activities. Since the Proposed Project consists of the development of a 1,803,729 square foot warehouse, specifically for buildings 4 and 5 that are greater than 100,000 square feet, the Proposed Project's warehouse owners and operators will be required to comply with Rule 2305 once the warehouse is occupied. Therefore, South Coast AQMD staff recommends that the Lead Agency review South Coast AQMD Rule 2305 to determine the potential WAIRE Points Compliance Obligation for future operators and explore whether additional project requirements and CEQA mitigation measures can be identified and implemented at the Proposed Project that may help future warehouse operators meet their compliance obligation. South Coast AQMD staff is available to answer questions concerning Rule 2305 implementation and compliance by phone or email at (909) 396-3140 or waire-program@aqmd.gov. For implementation guidance documents and compliance and reporting tools, please visit South Coast AQMD's WAIRE Program webpage.[28]

South Coast AQMD Air Permits and Role as a Responsible Agency

A1-13

If implementation of the Proposed Project would require the use of new stationary and portable sources, including but not limited to emergency generators, fire water pumps, boilers, etc., one or more air permits from South Coast AQMD will be required. The Final EIR should include a discussion about the South Coast AQMD rules that may be applicable to the Proposed Project. Those rules may include, for example, Rule 201 – Permit to Construct,[29] Rule 203 – Permit to

[26] South Coast AQMD Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program available at: http://www.aqmd.gov/docs/default-source/rule-book/reg-xxiii/r2305.pdf.
[27] South Coast AQMD Rule 316 – Fees for Rule 2305 available at https://www.aqmd.gov/docs/default-source/rule-book/reg-iii/r316.pdf
[28] South Coast AQMD WAIRE Program available at: http://www.aqmd.gov/waire.
[29] South Coast AQMD, Rule 201 available at https://www.aqmd.gov/docs/default-source/rule-book/reg-ii/rule-201.pdf

Operate,[30] Rule 401 – Visible Emissions,[31] Rule 402 – Nuisance,[32] Rule 403 – Fugitive Dust,[33] Rule 1110.2 – Emissions from Gaseous and Liquid Fueled Engines,[34] Rule 1113 – Architectural Coatings,[35] Rule 1166 – Volatile Organic Compound Emissions from Decontamination of Soil,[36] Rule 1466 – Control of Particulate Emissions from Soils with Toxic Air Contaminants,[37] and Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines,[38] etc.

A1-13 continued

It is important to note that if air permits from the South Coast AQMD are required, South Coast AQMD's role under CEQA will become the Responsible Agency of the Proposed Project. Per CEQA Guidelines Section 15086, the Lead Agency is required to consult with South Coast AQMD. CEQA Guidelines Section 15096 sets forth specific procedures for a Responsible Agency, including making a decision on the adequacy of the CEQA document for use as part of the process for conducting a review of the Proposed Project and issuing discretionary approvals. Also, as set forth in CEQA Guidelines Section 15096(h), the Responsible Agency is required to make Findings in accordance with CEQA Guidelines Section 15091 for each significant effect of the project and issue a Statement of Overriding Considerations in accordance with CEQA Guidelines Section 15093, if necessary. Lastly, as set forth in CEQA Guidelines Section 15096(i), the Responsible Agency may file a Notice of Determination.

CEQA Guidelines Section 15096 sets forth specific procedures for a Responsible Agency, including making a decision on the adequacy of the CEQA document for use as part of the process for conducting a review of the Proposed Project and issuing discretionary approvals. Moreover, it is important to note that if a Responsible Agency determines that a CEQA document is not adequate to rely upon for its discretionary approvals, the Responsible Agency must take further actions listed in CEQA Guideline Section 15096(e), which could have the effect of delaying the implementation of the Proposed Project. In its role as CEQA Responsible Agency, the South Coast AQMD is obligated to ensure that the CEQA document prepared for this Proposed Project contains a sufficient project description and analysis to be relied upon in order to issue any discretionary approvals that may be needed for air permits.

For these reasons, the final CEQA document should be revised to include a discussion about any and all new stationary and portable equipment requiring South Coast AQMD air permits, provide the evaluation of their air quality and greenhouse gas impacts, and identify South Coast AQMD as a Responsible Agency for the Proposed Project as this information will be relied upon as the basis for the permit conditions and emission limits for the air permit(s). Please contact South Coast AQMD's Engineering and Permitting staff at (909) 396-3385 for questions regarding what types of equipment would require air permits. For more general information on permits, please visit South Coast AQMD's webpage at https://www.aqmd.gov/home/permits.

[30] South Coast AQMD, Rule 203 available at https://www.aqmd.gov/docs/default-source/rule-book/reg-ii/rule-203.pdf
[31] South Coast AQMD, Rule 401 available at https://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-401.pdf
[32] South Coast AQMD, Rule 402 available at https://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-402.pdf
[33] South Coast AQMD, Rule 403 available at https://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-403
[34] South Coast AQMD, Rule 1110.2 available at https://www.aqmd.gov/docs/default-source/rule-book/reg-xi/r1110_2.pdf
[35] South Coast AQMD, Rule 1113 available at https://www.aqmd.gov/docs/default-source/rule-book/reg-xi/r1113.pdf
[36] South Coast AQMD, Rule 1166 available at https://www.aqmd.gov/docs/default-source/rule-book/reg-xi/rule-1166.pdf
[37] South Coast AQMD, Rule 1466 available at https://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1466.pdf
[38] South Coast AQMD, Rule 1470 available at https://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1470.pdf

Conclusion

As set forth in Public Resources Code Section 21092.5(a) and CEQA Guidelines Section 15088(a-b), the Lead Agency shall evaluate comments from public agencies on environmental issues and prepare a written response at least 10 days prior to certifying the Final EIR. As such, please provide South Coast AQMD written responses to all comments contained herein at least 10 days prior to the certification of the Final EIR. In addition, as provided by CEQA Guidelines Section 15088(c), if the Lead Agency's position is at variance with recommendations provided in this comment letter, detailed reasons supported by substantial evidence in the record to explain why specific comments and suggestions are not accepted must be provided. A1-14

Thank you for the opportunity to provide comments. South Coast AQMD staff are available to work with the Lead Agency to address any air quality questions that may arise from this comment letter. Please contact Danica Nguyen, Air Quality Specialist, at dnguyen1@aqmd.gov should you have any questions.

Sincerely,

Sam Wang

Sam Wang
Program Supervisor, CEQA IGR
Planning, Rule Development & Implementation

SW:DN
SBC251001-07
Control Number

BLUM, COLLINS & HO LLP
ATTORNEYS AT LAW
10250 CONSTELLATION BOULEVARD
SUITE 2300
LOS ANGELES, CALIFORNIA 90067
(213) 572-0400

November 13, 2025

Sean McPherson
Principal Planner
City of Rancho Cucamonga, Planning Department
10500 Civic Center Drive
Rancho Cucamonga, CA 91730

Via Email to:
Sean.McPherson@cityofrc.us

Subject: Comments on Arrow Commerce Center Project EIR (SCH NO. 2023110033)

Dear Mr. McPherson,

4-1 Thank you for the opportunity to comment on the Environmental Impact Report (EIR) for the proposed Arrow Commerce Center 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.

1.0 Summary

4-2 The proposed project includes the demolition and site clearing of existing paved surface areas and site grading, excavation, and the development of five 2-story industrial buildings. The five industrial buildings consist of approximately 1,830,729 gross square feet of new building floor area for warehouse distribution and associated office space. The project also includes loading docks for truck trailers, 968 vehicle parking spaces, 444 truck trailer parking spaces, 6 new public streets, water quality basins, utility infrastructure, and exterior lighting and signage. Of the five

proposed buildings included in the proposed project, Buildings 1, 2, and 3 are anticipated to operate Monday through Friday between 4:00 a.m. and 8:00 p.m. (16 hours per day, 80 hours per week), and Buildings 4 and 5 are anticipated to operate 24 hours a day, seven days a week. The proposed project would accommodate approximately 1,408 employees daily.

The proposed project requires the City's approval of the following entitlements for the proposed project:

4-2 con't

1. Zoning Map Amendment pursuant to Section 17.38.080 (Large Warehouse Overlay Zone) of the RCMC to apply the overlay to the project site;
2. Design Review Application;
3. Conditional Use Permit (CUP) and Master Plan application pursuant to Section 17.30.030 (Allowed Land Uses and Permit Requirements) of the Rancho Cucamonga Municipal Code (RCMC); and,
4. Development Agreement.

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 by Ares/Black Creek within the City.

4-3

The EIR misleads the public and decision makers by circumventing adequate and accurate environmental analysis for the whole of the action - construction and operation of all Ares/Black Creek buildings as a whole. At minimum, piecemealed projects include the development of the DRC2021-00484[1] known as Etiwanda Commerce Center (1,214,131 sf of warehouse/industrial building area across 5 buildings), located adjacent to the south of the project site across the BNSF railroad tracks at 8996 Etiwanda Avenue. According to public entitlement records, DRC2021-

[1] https://aca-prod.accela.com/CITYOFRC/Cap/CapDetail.aspx?Module=Planning&capID1=21PLN&capID2=00000&capID3=00508&agencyCode=CITYOFRC

00484 was submitted to the City on 12/29/2021. The proposed project (DRC2021-00485[2]) was also submitted to the City on 12/29/2021. A third project (DRC2016-00726[3]) constructed a 611,573 square feet distribution center at 12400 Arrow Route[4], located immediately adjacent to the north of the project site across Arrow Route. Cumulatively, the proposed project and the two piecemealed projects will construct 3,648,153 sf of warehouse/industrial building area across 11 buildings.

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 Ares/Black Creek buildings as a whole, including at minimum the projects listed above.

4-3 cont'd

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." Because there are at least three developments as part of a single construction project, the project EIR must be more detailed in the specific effects of the project.

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[2] https://aca-prod.accela.com/CITYOFRC/Cap/CapDetail.aspx?Module=Planning&TabName=Planning&capID1=21PLN&capID2=00000&capID3=00509&agencyCode=CITYOFRC&IsToShowInspection=

[3] https://aca-prod.accela.com/CITYOFRC/Cap/CapDetail.aspx?Module=Planning&TabName=Planning&capID1=16PLN&capID2=00000&capID3=01569&agencyCode=CITYOFRC&IsToShowInspection=

[4] https://www.loopnet.com/viewer/pdf?file=https%3a%2f%2fimages1.loopnet.com%2fd2%2fr4fT6QQdAed6ab-jawz29bxsNI_xsw7SZFhwEBRRiBA%2f611573%2520SF%2520Arrow%2520Route%2520DC%2520Brochure.pdf

4-3 cont'd

A project EIR must be prepared which accurately represents the whole of the action without piecemealing the project into separate, smaller development projects to present unduly low environmental impacts. This is vital as the EIR for the proposed project concludes the project will result in significant and unavoidable cumulatively considerable Air Quality and VMT impacts, and is inconsistent with PlanRC (General Plan) and the RTP/SCS. The area of all three projects is within a SCAG Priority Equity Community and adjacent to a SB 535 Disadvantaged Community, meaning that the significance of the environmental impacts are felt in the most vulnerable areas of the SCAG region and State. The EIR must be revised to comply with CEQA § 15161 by preparing a Project EIR to adequately and accurately disclose the project-specific and cumulative impacts of all proposed Ares/Black Creek projects.

2.0 Project Description

4-4

The EIR does not include floor plans, grading plans, detailed site plans, or detailed elevations. The basic components of a Planning Application include a site plan, floor plan, grading plan, and elevations. The site plan provided in Figures 2-11 has been edited for public review and does not provide any detailed information such as the earthwork quantity notes, parking requirements, site coverage, floor area ratio, legend, or key notes. The elevations in Figure 2-12 through 2-16 do not include the building colors or materials. The EIR states that, "During the grading stage approximately 255,000 cubic yards of cut and fill would be balanced on site," but does not provide any method for the public or decision makers to verify this information, such as a grading plan. Providing the 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. 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.

3.0 Environmental Setting, Impacts, and Mitigation Measures. Effects Found Not to be Significant: Population and Housing

4-5

The IS/NOP states that, "The industrial land uses proposed would be consistent with the zoning and General Plan land use designations in adopted planning documents, such as the city's General Plan, and the RCMC. As such, the proposed project would not induce substantial unplanned population growth in an area directly or indirectly due to the proposed project's introduction of

new business, employees, and roads and infrastructure. This is because growth associated with proposed land uses that are consistent with the zoning and land use designations of the city are accounted for in the growth projections of the General Plan." However, there is no quantified discussion regarding the growth projections of the City's General Plan or SCAG's RTP/SCS. The EIR has not provided any substantial evidence to support the conclusion that the project is within these growth projections. Notably, the EIR also concludes in the Transportation section that the project exceeds the RTP/SCS growth projections and is inconsistent with PlanRC (General Plan). A finding of significance must be provided in a revised EIR.

SCAG's Connect SoCal Demographics and Growth Forecast[5] notes that the City will add 12,900 jobs from 2019 to 2035. Based on the EIR's calculation of 1,408 jobs, the project represents 10.9% of the City's job growth over 16 years. A single project accounting for this amount of the projected employment growth over 16 years represents a significant amount of growth. The EIR has not provided a cumulative analysis discussion of projects approved since 2019 (SCAG), General Plan adoption, and/or projects "in the pipeline" to determine if the project will exceed SCAG's employment growth forecast or the General Plan growth projections.

4-5 cont'd

For example, other recent industrial projects such as 9th and Vineyard[6] (823 employees) and El Camino Project[7] (474 employees) combined with the proposed project will cumulatively generate 2,705 employees, which is 20.9% of the City's employment growth forecast through 2035 accounted for only by three recent industrial projects. This total increases exponentially when other industrial and commercial development activity is added to the calculation. A revised EIR must be prepared to include this information for analysis, and also provide a cumulative analysis discussion of projects approved since 2019 (SCAG), General Plan adoption, and projects "in the pipeline" to determine the City's cumulative progress towards employment/population growth forecasts by SCAG and/or the General Plan.

[5] SCAG Connect SoCal Demographics and Growth Forecast https://www.scag.ca.gov/sites/default/files/2024-05/23-2987-tr-demographics-growth-forecast-final-040424.pdf
[6] 9th and Vineyard Development Project https://ceqanet.opr.ca.gov/2019110456/4
[7] El Camino Project https://ceqanet.lci.ca.gov/2023080369/4

4-5 cont'd

The EIR does not provide any quantified analysis to demonstrate if the proposed project is within the employment forecasts of the General Plan. The project site is located within Focus Area 8: Southeast Industrial Area of the General Plan EIR[8]. Table 5.14-6: Buildout Projections From Proposed Land Use Plan of the General Plan EIR demonstrates that the City will add 5,122 jobs in Industrial land use designations from 2020-2040. Table 1-1: Land Use Development Projections By Focus Area and Remainder of City for Buildout demonstrates that the Remainder of the City (includes Focus Area 8: Southeast Industrial Area) will add 4,927 jobs from 2020-2040. The EIR's calculation of the project's 1,408 net new jobs accounts for 27.4% of all jobs in the Remainder of the City. A single project accounting for this amount of the projected employment growth over 20 years represents a significant amount of growth. The proposed project represents a significant amount of employment growth for the entire City and Focus Area 8 accounted for by the General Plan EIR. A revised EIR must be prepared to provide this information for analysis and include a finding of significance because the project would directly induce substantial unplanned growth in an area.

3.2 Air Quality, 3.5 Energy, and 3.7 Greenhouse Gas Emissions

4-6

The EIR concludes that the project does not meet SCAQMD emissions thresholds and will result in significant and unavoidable cumulatively considerable air quality impacts due to exceeding emissions thresholds for VOC. The EIR states that, "The project and its features are consistent with SCAQMD efforts to reduce emissions Basin-wide," and that, "…because the proposed project would be consistent with the land use designations in the General Plan and other relevant policies and goals, the proposed project is consistent with the region's AQMP. As such, project-related emissions are accounted for in the AQMP, which has been crafted to bring the Basin into attainment status for all nonattainment pollutants and precursors thereof." However, the EIR is internally inconsistent as it concludes in the Transportation section that the project is not consistent with the buildout of PlanRC (General Plan) nor the SCAG RTP/SCS land use scenario. As discussed at length in the Land Use and Planning section below, the proposed distribution center use is not permitted in the Neo-Industrial land use designation of the General Plan. The project

[8] https://www.cityofrc.us/sites/default/files/2021-09/City%20of%20Rancho%20Cucamonga_GP%20Update%20and%20CAP_Draft%20EIR_September%202021.pdf

4-6 cont'd

also requires a Zoning Map Amendment to apply the Large Warehouse Overlay to the project site to allow more than 400,000 square feet of warehouse space. This indicates that the site was clearly not planned to accommodate the proposed project. For the foregoing reasons, the project is clearly inconsistent with the AQMP and a finding of significance must be included in a revised EIR. See also the attached air quality comments and analysis from SWAPE.

4-7

The EIR briefly states the project site census tract CalEnviroscreen scores, but does not meaningfully discuss their relation to the project's impacts. The EIR does not include for analysis relevant environmental justice issues in reviewing potential impacts, including cumulative impacts from the proposed project. 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.

According to CalEnviroScreen 4.0[9], CalEPA's screening tool that ranks each census tract in the state for pollution and socioeconomic vulnerability, the proposed project's census tract (6071002207) ranks in the 93rd percentile for overall pollution burden, meaning that it is among the communities that are most severely burdened by pollution in the state. The surrounding community bears the impact of multiple sources of pollution and is more polluted than average on several pollution indicator measured by CalEnviroScreen. For example, the project census tract ranks in the 95th percentile for ozone burden, the 94th percentile for particulate matter (PM) 2.5 burden, the 63rd percentile for diesel PM burden, and 87th percentile for traffic burden. All of these environmental factors are attributed to heavy 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[10]. Ozone can cause lung irritation, inflammation, and worsening of existing

[9] https://experience.arcgis.com/experience/11d2f52282a54ceebcac7428e6184203/page/CalEnviroScreen-4_0/
[10] OEHHA Traffic https://oehha.ca.gov/calenviroscreen/indicator/traffic-density

4-7 cont'd

chronic health conditions, even at low levels of exposure[11]. Exhaust fumes contain toxic chemicals that can damage DNA, cause cancer, make breathing difficult, and cause low weight and premature births[12].

The census tract also ranks in the 95th percentile for hazardous waste facility impacts and 94th percentile for solid waste facility impacts. Hazardous waste generators and facilities contribute to the contamination of air, water and soil near waste generators and facilities can harm the environment as well as people[13]. Solid waste facilities can expose people to hazardous chemicals, release toxic gases into the air (even after these facilities are closed), and chemicals can leach into soil around the facility and pose a health risk to nearby populations[14].

The census tract also bears more impacts from cleanup sites than 71% 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[15]. The census tract ranks in the 84th 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[16].

4-8

Further, the census tract is a diverse community including 53% Hispanic, 21% African-American, and 5% Asian-American residents, whom are especially vulnerable to the impacts of pollution. The community has a high rate of low educational attainment, meaning 85% of the census tract residents over age 25 has not attained a high school diploma. The community also has a high rate of poverty, meaning 70% 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[17]. Poor communities are often located in areas with high levels of pollution[18]. Poverty can cause stress that weakens the

[11] OEHHA Ozone https://oehha.ca.gov/calenviroscreen/indicator/air-quality-ozone
[12] OEHHA Traffic https://oehha.ca.gov/calenviroscreen/indicator/traffic-density
[13] OEHHA Hazardous Waste Generators and Facilities https://oehha.ca.gov/calenviroscreen/indicator/hazardous-waste-generators-and-facilities
[14] OEHHA Solid Waste Facilities https://oehha.ca.gov/calenviroscreen/indicator/solid-waste-sites-and-facilities
[15] OEHHA Cleanup Sites https://oehha.ca.gov/calenviroscreen/indicator/cleanup-sites
[16] OEHHA Toxic Releases https://oehha.ca.gov/calenviroscreen/indicator/toxic-releases-facilities
[17] OEHHA Poverty https://oehha.ca.gov/calenviroscreen/indicator/poverty
[18] Ibid.

immune system and causes people to become ill from pollution[19]. The community also has a high rate of linguistic isolation, meaning 59% of the census tract speaks little to no English and faces further inequities as a result.

4-8 cont'd

The project site is within a SCAG Priority Equity Community[20] (SCAG Census Tract 06071002207). Additionally, the census tract adjacent to the project site (6071002301 (east) is identified as a SB 535 Disadvantaged Community[21]. This indicates that cumulative impacts of development and environmental impacts in the City are disproportionately impacting these communities. The EIR does not discuss that the project site and surrounding area are disadvantaged communities, does not utilize this information in its analysis, and has not considered the project's significant environmental impacts in relation to the SCAG Priority Equity Community and SB 535 status of the project census tract and surrounding area. A revised EIR must be prepared to disclose this information and utilize it for threshold analysis throughout the document to comply with CEQA Guidelines Section 15131 (c).

4-9

The EIR states that, "the project would be subject to the energy conservation requirements of the California Energy Code (Title 24, Part 6, of the California Code of Regulations, California's Energy Efficiency Standards for Residential and Nonresidential Buildings) and the California Green Building Standards Code (Title 24, Part 11 of the California Code of Regulations). The California Energy Code provides energy conservation standards for all new and renovated nonresidential buildings constructed in California, and the Green Building Standards Code requires solar access, natural ventilation, and stormwater capture." The State of California lists three approved compliance modeling softwares[22] for non-residential buildings: CBECC-Com, EnergyPro, and IES VE. CalEEMod and EMFAC are not listed as approved softwares. The

[19] Ibid.
[20] https://hub.scag.ca.gov/datasets/daa7cbaf5b064399800f3426cbb64270_0/explore?location=33.814985%2C-117.221261%2C14.86
[21] OEHHA SB 535 Census Tracts https://experience.arcgis.com/experience/1c21c53da8de48f1b946f3402fbae55c/page/SB-535-Disadvantaged-Communities
[22] 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

4-9 cont'd

CalEEMod and spreadsheet-based modeling in Appendix B 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. If the project applies for a building permit on or after January 1, 2026, it must comply with the 2025 Building Energy Efficiency Standards, and only CBECC is currently listed as an approved software for the updated standards[23]. Since the EIR did not accurately or adequately model the energy 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 in a revised EIR.

4-10

The EIR relies upon Mitigation Measures 3.7-1a and 3.7-1b in the Greenhouse Gas Emissions analysis to reduce the project's energy consumption. Mitigation Measure 3.7-1a requires that, "At least 50 percent of the equipment used onsite to construct the project shall be powered by near-zero emission (NZE) or zero emission (ZE) technology. Examples of NZE and ZE technologies include battery electric, renewable diesel, hydrogen, or biomethane. This requirement applies to all construction equipment greater than or equal to 50 horsepower. If NZE or ZE equipment and/or fuel options are not commercially available for the project's construction equipment needs, the applicant shall demonstrate that a minimum of three off-road equipment fleet owners/operators/fuel providers in the San Bernardino County or adjacent counties were contacted and responded that NZE or ZE equipment and/or fuel options are not commercially available for the project's heavy-duty off-road equipment needs." This indicates that compliance with this requirement is not feasible and therefore no reduction in Energy consumption can be achieved through this mitigation. Additionally, courts have upheld agency conclusions that electric drayage trucks are not yet commercially viable. (Natural Resources Defense Council, Inc. v. City of Los Angeles (2023) 98 Cal.App.5th 1176, 1223.) Since electric equipment specified to achieve reduction in Energy consumption is not commercially available, there is no possible reduction in Energy consumption associated with these mitigation measures. The efficacy of the proposed mitigation and reduction of Energy consumption associated with the CAP to achieve statewide GHG reduction goals (AB 1279 and SB 32) cannot be assured, and the project's Energy impact is

[23] California Energy Commission 2025 Energy Code Compliance Software https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2025-energy-code-compliance-software

4-10 cont'd

therefore considered significant and unavoidable. A revised EIR must be prepared to include a finding of significance because there is no possible assurance of the quantity of Energy consumption reduced via implementation of the CAP and mitigation of the project's Energy impact to less than significant is not feasible.

The EIR concludes that the project will generate 27,981 MTCO2e annually, which exceeds the SCAQMD threshold of 10,000 MTCO2e annually by 2.7 times. This is a significant and unavoidable impact that the EIR attempts to circumvent by qualitatively analyzing the project in accordance with the City's CAP. The EIR concludes that, "The project would implement features that would reduce emissions and would be generally consistent with the City's CAP as well as the 2022 Scoping Plan. However, the project would not implement all relevant CAP and Scoping Plan strategies. Therefore, the proposed project would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment or conflict with state GHG plans. This impact would be significant," and implements Mitigation Measures 3.7-1a, 3.7-1b, 3.7-1c in addition to the Mitigation Measures from the Air Quality and Transportation sections.

4-11

The City's CAP was approved as a plan for the reduction of Greenhouse Gas Emissions pursuant to State CEQA Guidelines Section 15183.5(b). Pursuant to State CEQA Guidelines Sections 15064(h)(3) and 15130(d), a lead agency may determine that a project's "incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements in a previously adopted plan or mitigation program," in order to conclude the project's significant and unavoidable cumulatively considerable impacts are less than significant. However, as stated in the EIR, the project does not comply with requirements of the CAP and ultimately the CAP does not comply with CEQA Guidelines Section 15183.5(b)(1)(D) to, "Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level."

The CAP is insufficient in achieving reductions in GHG emissions and mitigating significant GHG emissions. As an example, analysis in Table 3.7-4 with, "2. Off-Road Equipment (Strategy 1.4)" concludes the project is, "Consistent After Mitigation. Mitigation Measure 3.2-2b, in Section 3.2,

"Air Quality," prescribes requirements to ensure 100% operational off-road equipment exceeding 50 hp is zero emissions or evidence is provided to the City that specific pieces are not commercially available." This indicates that compliance with this requirement is not feasible and therefore no community benefits or reduction in GHG emissions can be achieved through implementation of the CAP. Additionally, courts have upheld agency conclusions that electric drayage trucks are not yet commercially viable. (Natural Resources Defense Council, Inc. v. City of Los Angeles (2023) 98 Cal.App.5th 1176, 1223.) Since electric equipment specified to achieve GHG reduction goals is not commercially available, there is no possible community benefit or reduction of GHG emissions associated with these measures in the CAP. The efficacy of the proposed mitigation and reduction of GHG emissions associated with the CAP to achieve statewide GHG reduction goals (AB 1279 and SB 32) cannot be assured, and the project's GHG impact is therefore considered significant and unavoidable. A revised EIR must be prepared to include a finding of significance because there is no possible assurance of the quantity of GHG emissions reduced via implementation of the CAP and mitigation of the project's GHG impact to less than significant is not feasible.

4-11 cont'd

Further, Table 3.7-4 concludes the project is consistent with CAP consistency checklist item, "6. Transportation Demand Management (Strategy 12.1) For Multi-Family Residential and NonResidential: will the project include all of the following strategies? 'Do not exceed the minimum code requirement for parking capacity,'" because, "The proposed project would meet the parking requirements of the Rancho Cucamonga Municipal Code (Chapter 17.64, Parking and Loading Standards; 17.64.100 D.1, Trailer Parking Required)." The EIR is misleading and internally inconsistent. Table 2-2: Summary of Proposed Automobile and Truck Trailer Parking demonstrates the following:

4-12

Required Passenger Car Parking Stalls: 916
Provided Passenger Car Parking Stalls: 968

Required Trailer Parking Stalls: 282
Provided Trailer Parking Stalls: 444

Exceeds Passenger Car: 52 stalls

Exceeds Trailer: 162 stalls

Exceeds Total: 214 stalls

4-12 cont'd

As shown above, the project exceeds the minimum code requirement for parking capacity for passenger cars by 52 stalls and for trailer parking by 162 stalls, 214 stalls total. The project is not consistent with the CAP and a finding of significance must be included in a revised EIR.

4-13 CEQA Guidelines Section 15183.5(b)(2) requires that, "An environmental document that relies on a greenhouse gas **reduction** plan for a cumulative impacts analysis must identify those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project." The project does not comply with the CAP's GHG reduction plan requirements and attempts to implement additional mitigation to produce a less than significant finding. This does not comply with CEQA Guidelines Section 15183.5, which relies solely upon the reduction strategies of the CAP and project compliance with the CAP to achieve a less than significant impact. The strategies within the CAP are also infeasible/nonexistent technology and will not result in GHG reductions required by AB 1279 and SB 32 and therefore cannot support a less than significant finding. A revised EIR must be prepared to include a finding of significance.

3.8 Hazards and Hazardous Materials

4-14 The EIR identifies that the project site, "…is located within the Airport Influence Area (AIA) of the Ontario International Airport," and that it, "…is located within the FAA Height Notification Surface Zone, which, per Federal Aviation Regulations (FAR) Part 77, Subpar B, requires that the FAA be notified of any proposed construction or alteration having a height greater than a surface extending outward and upward at a slope of 100 to 1 for a horizontal distance of 20,000 feet from the airport runways." Therefore, the Project will need to obtain clearance from the Federal Aviation Administration (FAA) and comply with its lighting/signage restrictions and warning improvements. The EIR does not provide substantial evidence that the FAA has reviewed the project or their determination regarding hazards to flight.

The EIR states that, "The proposed warehouse complex would include new buildings ranging in height from 39 to 47 feet above ground level, which are of similar height to existing buildings in the surrounding area. Therefore, construction and operation of the proposed project would not have the potential to subject people residing or working in the project area to excess levels of aircraft noise or airport-related hazards." However, Figure 2-15: Building 4 Elevations shows the building is 54 feet 6 inches tall and Figure 2-16: Building 5 Elevations shows the building is 50 feet 6 inches tall. The EIR is internally inconsistent and has not provided any substantial evidence to support a less than significant finding, such as the FAA's review of the project and their Determination of No Hazard to Flight document. A revised EIR must be prepared to include a finding of significance.

4-14 cont'd

The California Airport Land Use Planning Handbook[24] states that Airport Land Use Commission review is required "Prior to the amendment of a general plan or specific plan, or the adoption of a zoning ordinance or building regulation within the ALUCP planning boundary, the ALUC shall review the plan, ordinance, or regulation for consistency with the ALUCP (PUC Section 21676(b))." The proposed project requires a Zoning Map Amendment pursuant to Section 17.38.080 (Large Warehouse Overlay Zone) of the RCMC to include the site in the Large Warehouse Overlay Zone to proceed. RC Municipal Code Section 17.22.040(B)(2) requires that when reviewing Development Code/Zoning Map Amendments the City Council, "…approves by ordinance or denies the zoning code/map amendment in accordance with the requirements of this title." Airport Land Use Commission (ALUC) review is required and has not been conducted. Delaying the ALUC review until after the EIR has been published for public comment is implementation of the project prior to CEQA review and deferred mitigation in violation of CEQA. Since the ALUC has not reviewed the project, a revised EIR must be prepared to include a finding of significance as there is no meaningful evidence presented to support a less than significant finding.

[24] California Airport Land Use Planning Handbook https://dot.ca.gov/-/media/dot-media/programs/aeronautics/documents/californiaairportlanduseplanninghandbook-a11y.pdf

3.10 Land Use and Planning

The project faces significant inconsistencies with statutory requirements of the Housing Crisis Act (HCA) of 2019/Senate Bill (SB) 330[25]/SB 8[26]. The HCA/SB 330/SB 8 require replacement housing sites when land designated for housing development experience changes to ensure no net loss of housing capacity. Approximately 64 acres of the project site has a General Plan land use designation of Neo-Industrial[27] that has a maximum density of 24 dwelling units per acre[28]. The approximately 64 acre area of the project site can accommodate the development of up to 1,545 dwelling units. Project implementation will result in exclusively industrial development. The site would not be used for the development of any residential dwelling units and replacement sites must be proposed and analyzed as part of the project. The EIR does not act in conformance with these laws and has not identified replacement sites for housing. Specifically, the existing General Plan designation permits the development of up to 1,545 residential dwelling units. The lost capacity of 1,545 dwelling units is a significant environmental impact in violation of the HCA/SB 330/SB 8. The EIR must be revised to include a finding of significance due to this inconsistency.

4-15

APN 0229-121-33
30.12 acres
Residential capacity: 722 dwelling units

APN 0229-121-34
19.03 acres
Residential capacity: 456 dwelling units

APN 0229-121-35
15.32 acres
Residential capacity: 367 dwelling units

[25] Housing Crisis Act of 2019/SB 330
https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201920200SB330
[26] SB 8 https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202120220SB8
[27] San Bernardino County Map My County
https://experience.arcgis.com/experience/8c4f806654654ba689fa7ab842d57352
[28] https://www.cityofrc.us/sites/default/files/2022-01/PlanRC_Volume%202_Final_pages.pdf

4-15 cont'd

Approval of the EIR and the proposed project will result in a net loss of housing capacity of 1,545 dwelling units. This is a significant environmental impact in violation of the HCA/SB 330/SB 8. The EIR must be revised to include a finding of significance due to this inconsistency. Additionally, deferring the identification of replacement sites to a later date is project piecemealing in violation of CEQA. 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 whole of the action must statutorily and legally include identified replacement sites to accommodate the lost capacity of 1,545 dwelling units. This is a significant and unavoidable environmental impact and a finding of significance must be made in a revised EIR.

4-16

Further, the significant and unavoidable impacts of the project and the project's operational characteristics prohibit residential development within 1,000 feet of the project site. This is required in the General Plan as stated by, "Policy RC-5.7 New Sensitive Receptors Near Existing Industrial Uses. Avoid placing homes, schools, hospitals, and childcare facilities within 1,000 feet of a land use that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU unit operations exceed 300 hours per week." Appendix J states that the project will generate approximately 684 trucks per day and therefore Policy RC 5.7 applies to all properties within 1,000 feet of the project site. The EIR has not provided the residential capacity of all sites within 1,000 feet of the project site and replacement sites as required by The Housing Crisis Act (HCA) of 2019/Senate Bill (SB) 330/SB 8. A finding of significance must be made in a revised EIR.

The project site is primarily located in the Neo-Industrial Employment District of the General Plan, with only Building 5 (APN 022913119) within the Industrial Employment District. The EIR mischaracterizes the intent and permitted uses within the Neo-Industrial Employment District of the General Plan and the proposed project.

The General Plan states that in the Neo-Industrial land use designation, "More intensive industrial uses with substantive impacts on adjacent uses are not permitted;" and that, "Low impact industrial uses, such as incubator spaces and small warehouses, that are context-sensitive and calibrated to

minimize impacts to adjacent residential uses are preferred." The Industrial Employment District of the General Plan permits uses that are, "a broad range of light and medium industrial uses, including light industrial research parks, logistics centers, low impact manufacturing, and machining operations."

The EIR states that, "The proposed industrial distribution facilities, including high-cube fulfillment center (non-sorting), general warehouse, high-cube cold storage warehouse, and accessory office space, are allowable uses within these land use designations." Distribution centers and warehouses are a component of the overall logistics center business chain. Logistics facilitates the overall movement of goods within supply chain management (upstream, downstream, raw materials, finished products, etc.). Distribution is a point on the logistics center business chain as the movement of finished gods for final delivery to the end consumer at their home or commercial stores. Overall, distribution centers *are* logistics centers and a component of the overall logistics process. Therefore, the proposed project is not permitted within the existing Neo-Industrial Employment District land use designation because it is not a small warehouse and it is not context-sensitive or calibrated to minimize impacts. The project requests a Zoning Map Amendment to be located within the Large Warehouse Overlay, which clearly indicates that it is not a small warehouse. The project will result in significant and unavoidable impacts to Air Quality and increase VMT, indicating that it is an intense industrial use with substantive impacts on adjacent uses. The proposed distribution center use is clearly permitted and intended to be located within the Industrial Employment District as it expressly lists logistics centers as a permitted use. A finding of significance must be included as part of a revised EIR due to this inconsistency.

4-16 cont'd

Table 3.10-1: Potential to Conflict with PlanRC 2040 Land Use Policies concludes that the project is consistent with Policy "LC-1.16 Healthy Development. Ensure that the design and development of our communities supports the health and well-being of our residents. Use the Healthy Development Checklist, or similar assessment tool, to assess the overall health performance and supportiveness of new development projects," because, "The proposed project includes measures to reduce environmental impacts on human health and safety from air pollutants, hazardous materials, noise, and transportation hazards. Refer to Section 3.2, "Air Quality," Section 3.8, "Hazards and Hazardous Materials," Section 3.11, "Noise and Vibration," and Section 3.13,

4-17

4-17 cont'd

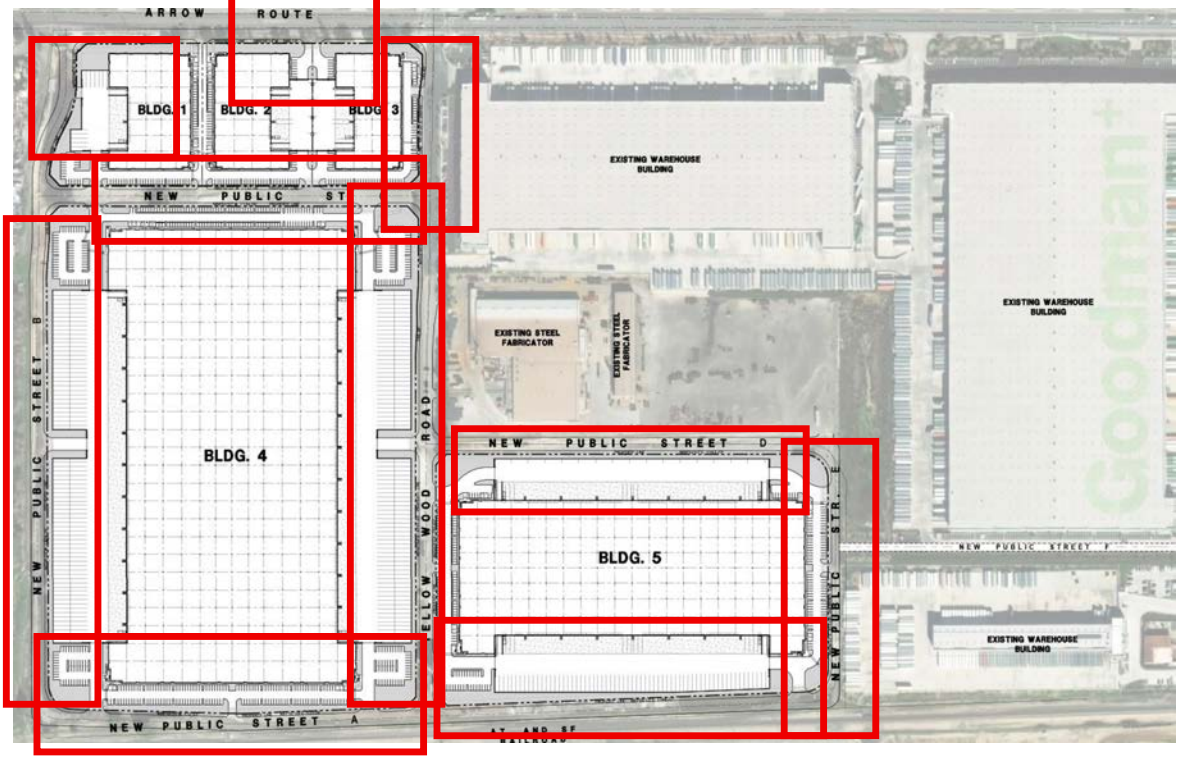
"Transportation" for additional discussion. Therefore, no conflict with Policy LC-1.16 would occur that would result in an adverse environmental effect." The analysis excludes that the project will result in significant and unavoidable cumulatively considerable impacts to Air Quality and VMT. The project conflicts with several items in the Healthy Development Checklist[29] for active transportation since it does not construct Whittram Avenue in accordance with the Southeast Area street network and therefore does not provide the associated active transportation infrastructure. The project also conflicts with, "17. Environmental Justice. How well does the project mitigate any impacts that would disproportionately affect disadvantaged communities?" The project will result in significant and unavoidable cumulatively considerable impacts to Air Quality and VMT within a SCAG Priority Equity Community and the site is adjacent to a SB 535 Disadvantaged Community, meaning that it does not successfully mitigate impacts that disproportionately affect disadvantaged communities.

4-18

The EIR concludes the project is consistent with Policy "LC-7.6 Loading Docks. *Require* that parking lots, loading docks, outdoor storage, and processing, *be located behind or beside buildings, not in front*, and be screened from public views," because, "loading docks would be oriented away from existing and proposed public streets or screened with walls, fences, and landscaping. The consistency analysis excludes any statements regarding the siting of loading docks and parking lots in front of the proposed buildings. Figure 2-11: Proposed Site Plan depicts several loading dock and parking lot areas that are in front of buildings and visible from public streets (Arrow Route, Yellow Wood Road, and New Public Streets A, B, C, D E, and F):

[29] https://cheac.org/wp-content/uploads/2017/10/RUHS-HDC_FINAL09142017.pdf

4-18 cont'd



The EIR must be revised to include a finding of significance due to the project's inconsistency with Policy LC-7.6.

4-19

Further, Table 3.10-1: Potential to Conflict with PlanRC 2040 Land Use Policies does not provide a consistency analysis with the following applicable General Plan policies and must be revised to include this analysis:

1. Policy LC-1.5 Master Planning. When planning a site, there must be meaningful efforts to master plan the site so as to ensure a well-structured network and block pattern with sufficient access and connectivity to achieve the placemaking goals of this General Plan.
2. Policy LC-1.6 Disadvantaged Communities. Prioritize development appropriate to the needs of disadvantaged communities, particularly south of Foothill Boulevard.
3. Policy LC-1.7 Design for Safety. Require the use of Crime Prevention Through Environmental Design (CPTED) techniques such as providing clear lines of sight, appropriate lighting, and wayfinding signs to ensure that new development is visible from public areas and easy to navigate.

4. Policy LC-1-8 Public Art. Require new construction to integrate public art in accordance with the City Public Arts Program.
5. Policy LC-1.13 Improved Public Realm. Require that new development extend the "walkable public realm" into previously vacant and/or parking lot dominant large single-use parcels of land.
6. Goal LC-2 Human Scaled. A city planned and designed for people fostering social and economic interaction, an active and vital public realm, and high levels of public safety and comfort.
7. Policy LC-2.1 Building Orientation. Require that buildings be sited near the street and organized with the more active functions—entries, lobbies, bike parking, offices, employee break rooms and outdoor lunch areas—facing toward and prominently visible from the street and visitor parking areas.
8. Policy LC-2.5 Gradual Transitions. Where adjacent to existing and planned residential housing, require that new development of a larger form or intensity, transition gradually to a complement the adjacent residential uses.
9. Goal LC-3 Fiscally Sustainable. A fiscally sound and sustainable City.
10. Policy LC-3.1 Community Value. Actively manage growth and investments in the community to maximize the value of new development, seeking value-per-acre outcomes of up to six times higher.

4-19 cont'd

11. Policy LC-3.2 Community Benefit. Require a community benefit and economic analysis for large projects that abut existing neighborhoods or for any project at the maximum density, with a focus on resolving physical, economic, long-term fiscal, and aesthetic impacts.
12. Policy LC-3.3 Community Amenities. Balance the impacts of new development, density, and urbanization through the provision of a high-level of neighborhood and community amenities and design features.
13. Policy LC-3.5 Efficient Growth. Manage growth in a manner that is fiscally sustainable, paced with the availability of infrastructure, and protects and/or enhances community value. Discourage growth and development that will impact the City's ability to sustainably maintain infrastructure and services.
14. Policy LC-7.3 Campus Design. Encourage employment areas to be developed like a college campus with buildings oriented toward an internal roadway, buffer landscaping along the

perimeter, and ample opportunities for paths and trails connecting to the City system, as well as relaxation areas for employees.

15. Policy MA-2.10 Block Pattern. Require development projects to arrange streets in an interconnected block pattern, so that pedestrians, bicyclists, and drivers are not forced onto arterial streets for inter- or intra- neighborhood travel.
16. Policy MA-3.3 Vulnerable User Safety. Prioritize pedestrian improvements in the Pedestrian Priority Area shown on Figure 8 to promote safety in the southwest area of the city.
17. Goal H-1 Housing Opportunities. A diverse community with a broad range of housing types and opportunities to accommodate expected new households.
18. Policy H-1.1 RHNA Requirement. Encourage the development of a wide range of housing options, types, and prices that will enable the City to achieve its share of the RHNA.
19. Goal RC-5 Local Air Quality. Healthy air quality for all residents.
20. Policy RC-5.1 Pollutant Sources. Minimize increases of new air pollutant emissions in the city and encourage the use of advance control technologies and clean manufacturing techniques.
21. Policy RC-5.2 Air Quality Land Use Compatibility. Avoid siting of homes, schools, hospitals, and childcare facilities and land uses within 500 feet of land uses that are considered large emitters.

4-19 cont'd

22. Policy RC-5.3 Barriers and Buffers. Require design features such as site and building orientation, trees or other landscaped barriers, artificial barriers, ventilation and filtration, construction, and operational practices to reduce air quality impacts during construction and operation of large stationary and mobile sources.
23. Policy RC-5.5 Impacts to Air Quality. Ensure new development does not disproportionately burden residents, due to age, culture, ethnicity, gender, race, socioeconomic status, or geographic location, with health effects from air pollution. Prioritize resource allocation, investments, and decision making that improves air quality for residents disproportionately burdened by air pollution because of historical land use planning decisions and overarching institutional and structural inequities.
24. <u>Policy RC-5.6 Community Benefit Plan. Require that any land use generating or accommodating more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU unit operations exceed 300 hours per week,</u>

provide a community benefit plan demonstrating an offset to community impacts of the truck traffic.

25. Policy RC-5.9 Truck Hook-Ups at New Industrial or Commercial Developments. Require new industrial or commercial developments at which heavy-duty diesel trucks idle on-site to install electric truck hook-ups in docks, bays, and parking areas.
26. Goal RC-6 Climate Change. A resilient community that reduces its contributions to a changing climate and is prepared for the health and safety risks of climate change.
27. Policy RC-6.1 Climate Action Plan. Maintain and implement a Climate Action Plan (CAP) that provides best management practices for reducing greenhouse gas emissions.
28. Policy RC-6.5 GHG Reduction Goal. Reduce emissions to 80 percent below 1990 levels by 2050 and achieve carbon neutrality by 2045.
29. Policy RC-6.12 Reduced Water Supplies. When reviewing development proposals, consider the possibility of constrained future water supplies and require enhanced water conservation measures.
30. Policy RC-6.13 Designing for Warming Temperatures. When reviewing development proposals, encourage applicants and designers to consider warming temperatures in the design of cooling systems.

4-19 cont'd

31. Policy RC-6.14 Designing for Changing Precipitation Patterns. When reviewing development proposals, encourage applicants to consider stormwater control strategies and systems for sensitivity to changes in precipitation regimes and consider adjusting those strategies to accommodate future precipitation regimes.
32. Policy RC-6.15 Heat Island Reductions. Require heat island reduction strategies in new developments such as light-colored paving, permeable paving, right-sized parking requirements, vegetative cover and planting, substantial tree canopy coverage, and south and west side tree planting.
33. Policy RC-6.16 Public Realm Shading. Strive to improve shading in public spaces, such as bus stops, sidewalks and public parks and plazas, through the use of trees, shelters, awnings, gazebos, fabric shading and other creative cooling strategies.
34. Policy RC-7.9 Passive Solar Design. Require new buildings to incorporate energy efficient building and site design strategies for the arid environment that include appropriate solar orientation, thermal mass, use of natural daylight and ventilation, and shading.

35. Policy RC-7.12 Solar Access. Prohibit new development and renovations that impair adjacent buildings 'solar access, unless it can be demonstrated that the shading benefits substantially offset the impacts of solar energy generation potential.
36. Goal S-5 Emerging Hazards. A built environment that incorporates new data and understanding about changing hazard conditions and climate stressors.
37. Policy S-5.4 Extreme Heat Vulnerabilities. Require that new developments, major remodels, and redevelopments address urban heat island issues and reduce urban heat island effects for the proposed project site and adjacent properties.
38. Policy S-5.5 Resilience Resources. Require new developments and redevelopments to incorporate resilience amenities such as, but not limited to community cooling centers, emergency supplies, and backup power that can be used by residents and businesses within a 1/4-mile radius of the location.
39. Policy S-5.6 Underground Utilities. Promote the under-grounding of utilities for new development, major remodels, and redevelopment.
40. Policy S-5.8 Climate Resiliency. Address climate resiliency and inequities through the planning and development process.
41. Policy S-5.9 Address High Winds. Require buildings and developments exposed to high wind conditions to incorporate design elements and features that minimize or reduce damage to people, structures, and the community.
42. Policy S-6.5 Height Restrictions. Require proposed developments within the Ontario Airport Influence Area meet the height requirements associated with FAR Part 77 standards.
43. Policy S-6.6 Development Near Airport. New development within the Ontario Airport Influence Area shall be consistent with the approved Airspace Protection Zones identified in the latest version of the Airport Land Use Compatibility Plan.

4-19 cont'd

Further, the EIR is internally inconsistent as it concludes in the Transportation section that the project is not consistent with the buildout of PlanRC (General Plan) nor the SCAG RTP/SCS land use scenario and it does not discuss this information here. The EIR must be revised to include this information here in order to provide an adequate and accurate environmental document and include a finding of significance due to this direct inconsistency.

4-20

Table 3.10-2 Potential to Conflict with Connect SoCal 2024 Policies does not specifically list any of the Connect SoCal 2024 Policies. The EIR groups together a few sequential policies and provides a general summary of the items. Given the EIR's conclusion that the project will result in significant and unavoidable impacts to Air Quality and increase VMT, and the project site is within a SCAG Priority Equity Community[30] (SCAG Census Tract 06071002207), the project is directly inconsistent with the following policies and will impede the SCAG region's ability to achieve statewide GHG reduction and climate goals:

1. Equitable Engagement and Decision-Making Policy 45. Advance community-centered interventions, resources and programming that serve the most disadvantaged communities and people in the region, like Priority Equity Communities, with strategies that can be implemented in the short-to-long-term.
2. Equitable Engagement and Decision-Making Policy 46. Promote racial equity that is grounded in the recognition of the past and current harms of systemic racism and one that advances restorative justice.
3. Equitable Engagement and Decision-Making Policy 47. Increase equitable, inclusive, and meaningful representation and participation of people of color and disadvantaged communities in planning processes.
4. Sustainable Development Policy 48. Promote sustainable development and best practices that enhance resource conservation, reduce resource consumption and promote resilience.
5. Sustainable Development Policy 49. Support communities across the region to advance innovative sustainable development practices.
6. Sustainable Development Policy 50. Recognize and support the diversity of communities across the region by promoting local place-making, planning and development efforts that advance equity, mobility, resilience and sustainability.
7. Air Quality Policy 51. Reduce hazardous air pollutants and greenhouse gas emissions and improve air quality throughout the region through planning and implementation efforts.

4-21

30 https://hub.scag.ca.gov/datasets/daa7cbaf5b064399800f3426cbb64270_0/explore?location=33.814985%2C-117.221261%2C14.86

8. Air Quality Policy 52. Support investments that reduce hazardous air pollutants and greenhouse gas emissions.
9. Air Quality Policy 53. Reduce the exposure and impacts of emissions and pollutants and promote local and regional efforts that improve air quality for vulnerable populations, including but not limited to Priority Equity Communities and the AB 617 Communities.
10. Climate Resilience Policy 64. Prioritize the most vulnerable populations and communities subject to climate hazards to help the people, places and infrastructure that are most at risk for climate change impacts. In doing so, recognize that disadvantaged communities are often overburdened.

4-21 cont'd

11. Climate Resilience Policy 65. Support local and regional climate and hazard planning and implementation efforts for transportation, land use, and other factors.
12. Climate Resilience Policy 66. Support nature-based solutions to increase regional resilience of the natural and built environment.

A revised EIR must be prepared to disclose the project's inconsistency with these policies and include a finding of significance. This is especially notable as the project site (SCAG Census Tract 06071002207) is identified as a Priority Equity Community in the RTP/SCS[31] and the project will result in significant and unavoidable impacts to Air Quality and increase VMT. Additionally, the EIR concludes that the project is inconsistent with the RTP/SCS growth projections and buildout scenario. The EIR must be revised to include a finding of significance.

The EIR has not discussed or analyzed the project in accordance with all Rancho Cucamonga Municipal Code requirements. Rancho Cucamonga Municipal Code Section 17.22.040(C) provides the required findings for approval of a Zoning Map Amendment:

4-22

"17.22.040(C): Findings. Development code/zoning map amendments may be approved only when the city council finds that the Development Code/zoning map amendment is consistent with the general plan goals, policies, and implementation programs."

31 https://hub.scag.ca.gov/datasets/daa7cbaf5b064399800f3426cbb64270_0/explore?location=33.814985%2C-117.221261%2C14.86

4-22 cont'd

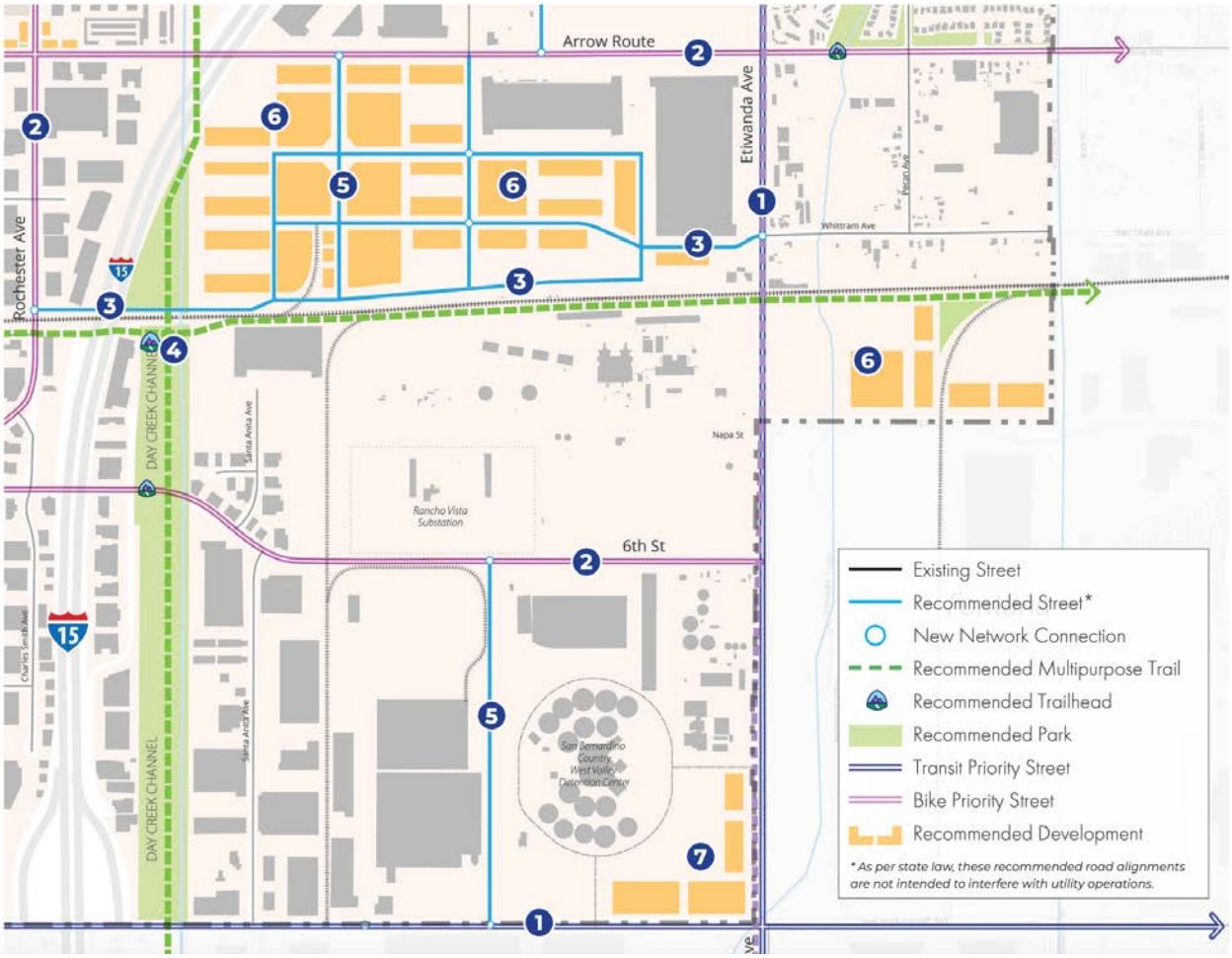
The project will result in significant and unavoidable impacts to Air Quality and increase VMT. As discussed throughout this comment letter, the project is directly inconsistent with several General Plan goals and policies. A finding of significance must be provided in a revised EIR.

3.13 Transportation

The EIR has not adequately or accurately analyzed the project in accordance with all programs, plans, ordinances, or policies addressing the Circulation System, including transit, roadway, bicycle, and pedestrian facilities. Figure M-8: Proposed Street Network in Southeast Area lists the following requirements for the project site:

4-23

FIGURE M-8 PROPOSED STREET NETWORK IN SOUTHEAST AREA



"Requirement 3: Extend Whittram Avenue from Etiwanda Avenue to Rochester Avenue and under the I-15 to provide better access to the Southeast Area.

Requirement 5: Develop a more complete, modern, multi-modal street network for improved circulation and access. The street network in this area is at or near capacity. If the legacy heavy industrial uses redevelop, additional east-west street capacity between Rochester Avenue and Etiwanda Avenue and north-south street capacity between Arrow and 6th Street will be needed."

The required street network bisects the Building 4 site. The EIR states that, "…the construction of new public street F would *partially* achieve a roadway connection envisioned in PlanRC, which *considered* the extension of Whittram Avenue from Etiwanda Avenue to Rochester Avenue and under the I-15 to provide better access to the Southeast Industrial Area (City of Rancho Cucamonga 2021: Figure M-8). Therefore, the proposed project would not conflict with any planned or programmed roadway improvements in the vicinity of the project site." The requirement is clear - construct Whittram Avenue in accordance with Requirement 3 to complete street network in the Southeast Area. The project does not comply with Requirement 3 and therefore a finding of significance must be included in a revised EIR.

4-23 cont'd

The EIR also does not discuss or analyze several other requirements from the Circulation Element of the General Plan. For example, Figure FA-1: Focus Areas Map depicts Arrow Route as a Transit Priority Street. Figure FA-2:Focus Area 1: Downtown Rancho Cucamonga depicts Arrow Route east of Rochester Avenue as a Bike Priority Street and includes, "Requirement 2: Improve Church Street, Arrow Route and Rochester Avenue with buffered bike lanes." Figure M-6: Pedestrian Focus Areas depicts the entirety of the project site within a pedestrian focus area. The complete streets network in the Southeast Area will not be constructed in accordance with the Circulation Element as the project will not construct Whittram Avenue and therefore not provide the associated active transportation improvements. A finding of significance must be included in a revised EIR.

4-24

Table 3.13-7: Project-Generated VMT shows that the project will exceed the VMT threshold for both the 2019 Baseline Year Plus Project and the 2050 Future Year Plus Project scenarios. The EIR provides Mitigation Measures 3.13-2a, 3.13-2b, 3.13-2c, and 3.13-2d to justify mitigating impacts to less than significant levels:

4-25

"Mitigation Measure 3.13-2a: Implement Commute Trip Reduction Marketing: The implementation of commute trip reduction marketing would result in an estimated up to 4-percent employee VMT reduction (CAPCOA 2021). Information sharing and marketing promote and educate employees about their travel choices to the employment location beyond driving such as carpooling, taking transit, walking, and biking, thereby reducing VMT.

Mitigation Measure 3.13-2b: Provide Employee Rideshare Program: The implementation of a ridesharing program would result in an estimated up to 4-percent employee VMT reduction (CAPCOA 2021). Ridesharing encourages carpooled vehicle trips in place of single-occupied vehicle trips, thereby reducing the number of trips and, therefore, VMT.

Mitigation Measure 3.13-2c: Provide End-of-Trip Bicycle Facilities: Providing end-of-trip facilities would result in an estimated up to 0.3-percent employee VMT reduction (CAPCOA 2021). The provision and maintenance of secure bike parking and related facilities encourages commuting by bicycle, thereby reducing VMT.

Mitigation Measure 3.13-2d: Provide Employer-Sponsored Vanpool: Providing employer-sponsored vanpool would result in an estimated up to 1.6-percent employee VMT reduction (CAPCOA 2021). Vanpooling is a flexible form of public transportation that provides groups of 5 to 15 people with a cost-effective and convenient rideshare option for commuting. The mode shift from long distance, single-occupied vehicles to shared vehicles reduces overall commute VMT. The analysis assumes that up to 2 percent of employees would participate in the vanpool program."

4-25 cont'd

Notably, the EIR has not provided substantial evidence to support the conclusion that Mitigation Measures 3.13-2a through 2d will reduce VMT to below the significance threshold throughout the life of the project. Mitigation Measures 3.13-2a through 2d are unenforceable mitigation in violation of CEQA § 21081.6 (b). Appendix I employs the assumption that 100% of the future employees are eligible to participate, which cannot be feasibly ascertained as the EIR simultaneously asserts throughout the document that the future tenants are unknown.

Further, it is not possible for the lead agency to ensure that Mitigation Measures 3.13-2a through 2d will result in reduced VMT by project employees and be implemented continuously, at all times, throughout the life of the project and maintain a VMT reduction to less than significant levels at

4-25 cont'd

all times. The efficacy of the proposed mitigation measures and reduction of VMT impacts below the applicable thresholds cannot be assured, and the project's VMT impact therefore remains significant and unavoidable. A revised EIR must be prepared to include a finding of significance because there is no possible assurance of the percentage of project employees that would utilize non-automobile or non-single occupant vehicle travel associated with the mitigation measures and mitigation of the project's VMT impact to less than significant is not feasible.

Additionally, Table 1: VMT Impact Thresholds of Exhibit A to Resolution No. 2020-056[32] states that for Land Use Projects, "A significant impact would occur if the project is determined to be inconsistent with the RTP/SCS." Appendix I states that, "The Project was determined to be inconsistent with the land use growth assumptions in Plan RC and in the RTP/SCS by reviewing the regional travel model, SBTAM+. As shown in Table 3 and Figures 2 and 3, the manufacturing and transportation employment growth generated by the Project is more than the total growth assumed in SBTAM+." Therefore, the project results in a significant impact due to inconsistency with the RTP/SCS, and a finding of significance for this specific reason must be included in a revised EIR.

4-26

Further, the EIR has underreported the quantity VMT generated by the proposed project operations. The operational nature of industrial/warehouse uses involves high rates of truck/trailer/delivery van VMT due to traveling from large import hubs to distribution centers or smaller industrial parks and then to their final delivery destinations. Once employees arrive at work at the proposed project, they will conduct their jobs by driving delivery vans across the region as part of the daily operations as distribution warehouses, 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 actual VMT generated by all aspects of project operation is not consistent with the significance threshold and legislative intent of SB 743 to reduce greenhouse gas emissions by reducing VMT. A revised EIR must be prepared to reflect a quantified VMT analysis that includes all truck/trailer and delivery van activity.

[32] https://rcdocs.cityofrc.us/WebLink/PDF10/fbcc90aa-27bf-455c-9838-e4a085ad0278/570716

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 states that, "All roadway and facility improvements would be subject to and constructed in accordance with applicable City and industry standard roadway design and safety guidelines, including the City of Rancho Cucamonga Standard Drawings and design guidelines provided in Chapter 17.120 and Section 17.122.030 of the Municipal Code. Furthermore, the proposed project would be subject to City review processes, which would ensure that the proposed project design, including new roadway improvements and tie-ins to the existing transportation network, would comply with all applicable design standards related to transportation safety." This does not comply with CEQA's requirements for adequate informational documents and meaningful disclosure (CEQA § 15121 and 21003(b)). The EIR has not provided any details regarding the requirements for emergency access or meaningful analysis of the project's compliance or noncompliance with these
4-27 requirements. Deferring this environmental analysis required by CEQA to the construction permitting phase is improper mitigation and does not comply with CEQA's requirement for meaningful disclosure and adequate informational documents. A revised EIR must be prepared to include a finding of significance as the EIR has not provided any meaningful evidence to support a less than significant finding.

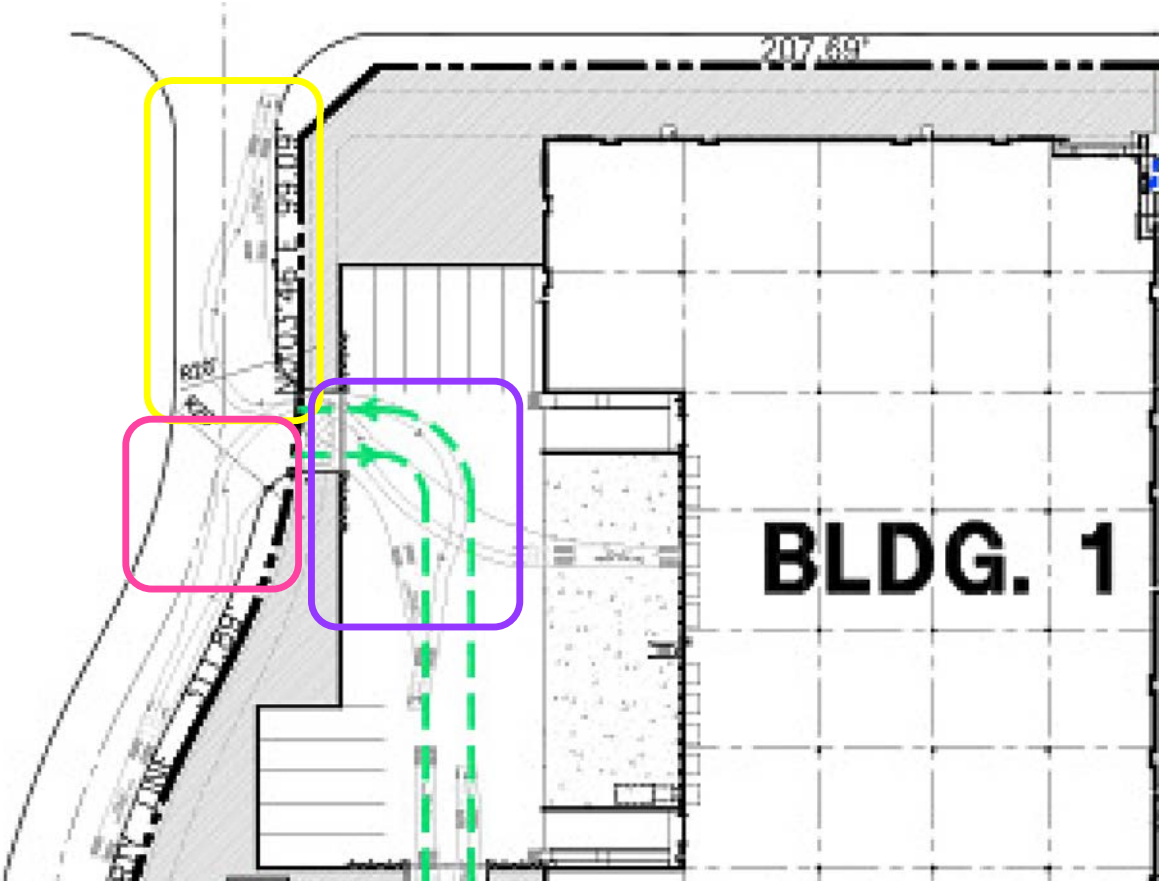
The EIR does not discuss Figure 2-17: Proposed Onsite Circulation, which depicts several areas of conflict between vehicles, as shown below.

West side of Building 1 at New Public Street B: Trucks/trailers entering and exiting the sites require additional maneuvering space across the centerline of each street, meaning that the trucks will need to drive on the "wrong side" of the street into oncoming traffic in order to enter or exit the site. A finding of significance is required in a revised EIR.

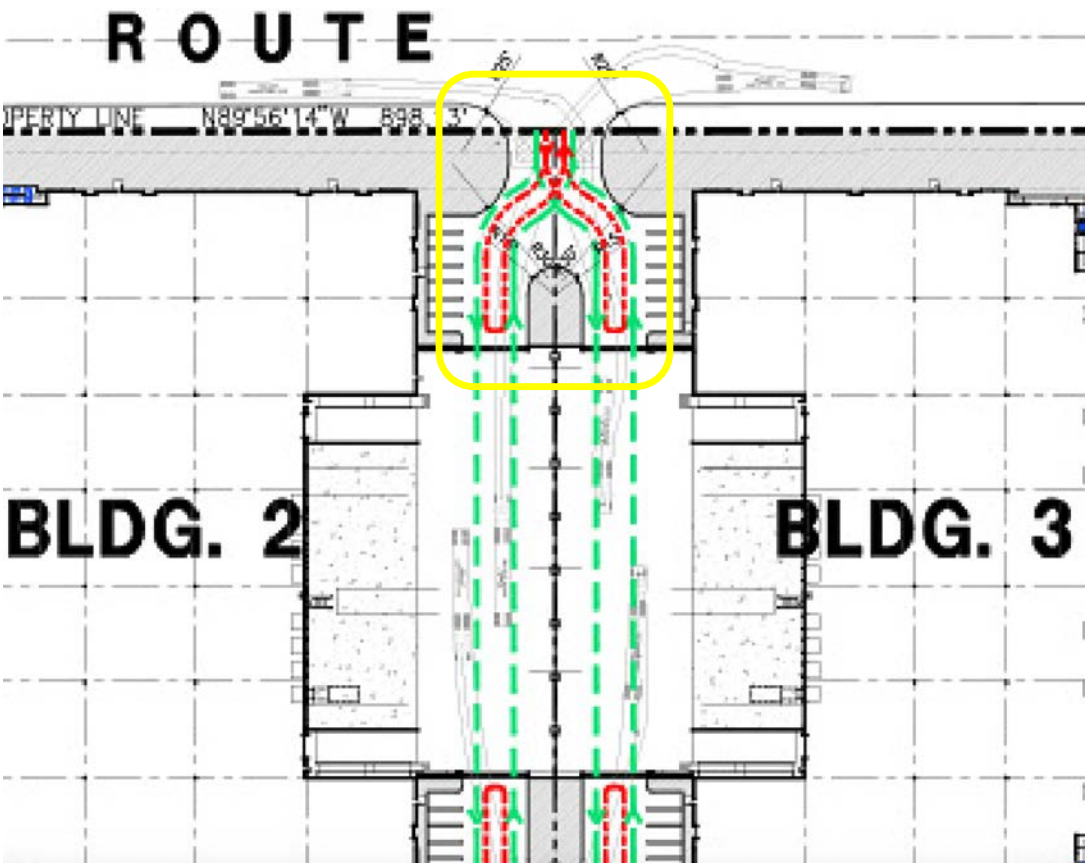
Additionally, the overlapping lines along the internal driveway indicate that it is not wide enough to accommodate more than one truck/trailer movement at a time. Truck/trailer parking stalls are also configured within the truck/trailer loading dock courts and adjacent to the project driveway. This layout and design is not conducive to vehicular maneuvering. These parking stalls may be in

use at any time and further restrict truck/trailer movement, particularly while trucks/trailers attempt to utilize the loading docks and maneuver throughout the site. Queuing/storage space is required on New Public Street B and the EIR has not analyzed these significant impacts. A finding of significance is required in a revised EIR.

4-27 cont'd



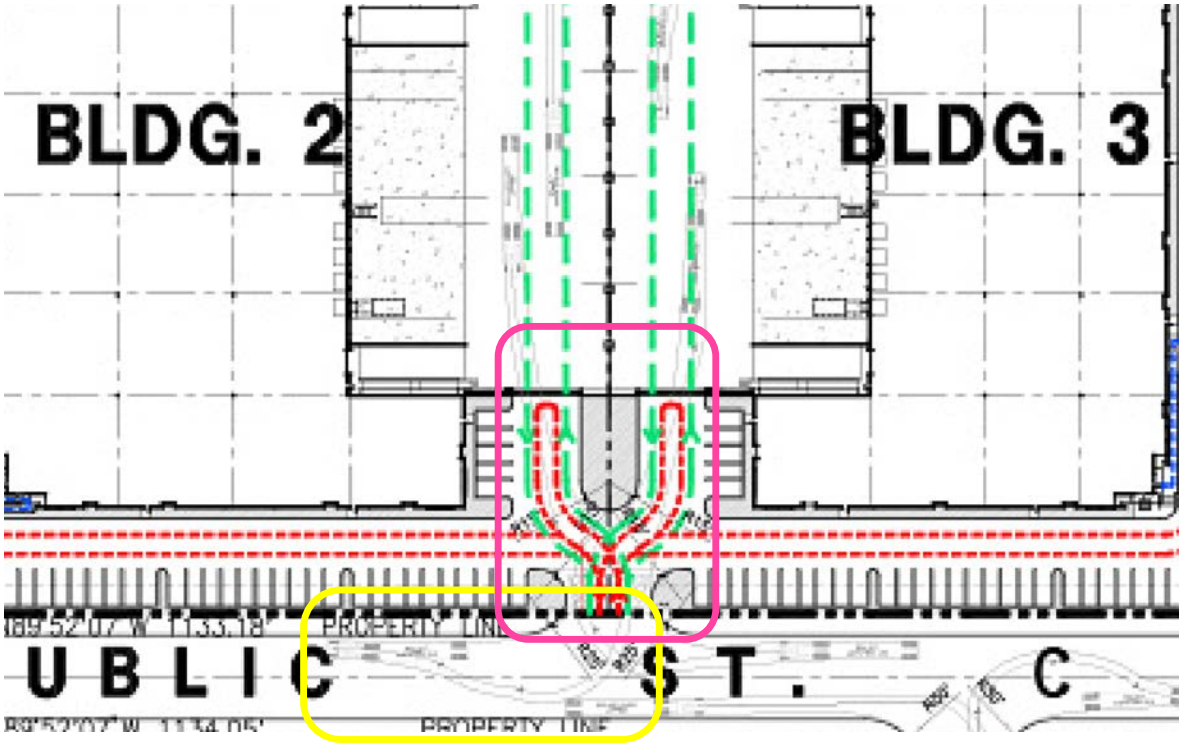
North side of Building 2 and Building 3 at Arrow Route: The overlapping lines along the internal driveway indicate that it is not wide enough to accommodate more than one truck/trailer movement at a time. Additionally, passenger car parking stalls are configured adjacent to the truck/trailer loading dock courts and the project driveway. This layout and design is not conducive to vehicular maneuvering. These parking stalls may be in use at any time and further restrict truck/trailer movement, particularly while trucks/trailers attempt to maneuver throughout the site. Queuing/storage space is required on Arrow Route and the EIR has not analyzed these significant impacts. A finding of significance is required in a revised EIR.



4-27 cont'd

South side of Building 2 and Building 3 at New Public Street C: Trucks/trailers entering and exiting the sites require additional maneuvering space across the centerline of each street, meaning that the trucks will need to drive on the "wrong side" of the street into oncoming traffic in order to enter or exit the site. A finding of significance is required in a revised EIR.

Additionally, the overlapping lines along the internal driveway indicate that it is not wide enough to accommodate more than one truck/trailer movement at a time. Passenger car parking stalls are also configured adjacent to the truck/trailer loading dock courts and the project driveway. This layout and design is not conducive to vehicular maneuvering. These parking stalls may be in use at any time and further restrict truck/trailer movement, particularly while trucks/trailers attempt to maneuver throughout the site. Queuing/storage space is required on New Public Street C and the EIR has not analyzed these significant impacts. A finding of significance is required in a revised EIR.

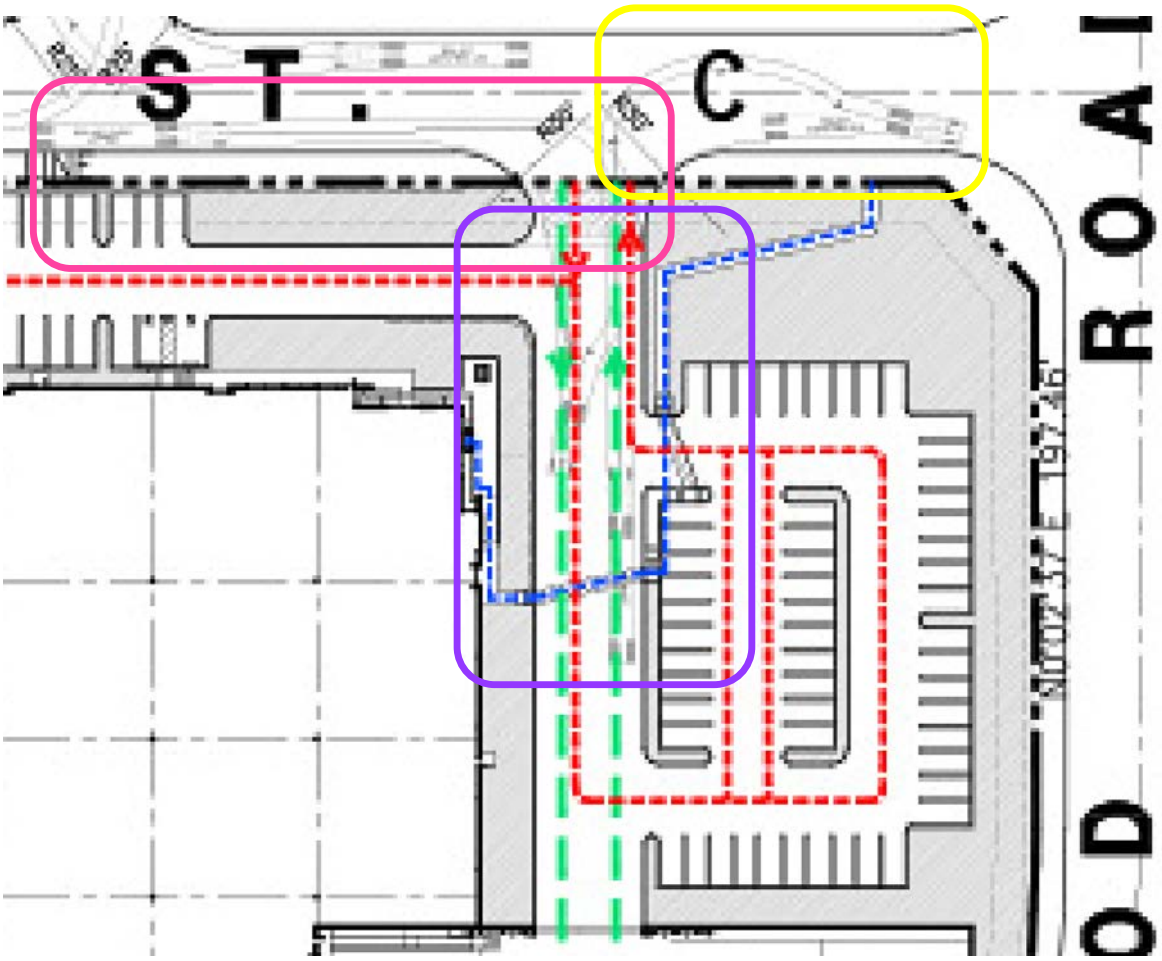


4-27 cont'd

Northeast side of Building 4 at New Public Street C and Yellow Wood Road: Trucks/trailers entering and exiting the sites require additional maneuvering space across the centerline of each street, meaning that the trucks will need to drive on the "wrong side" of the street into oncoming traffic in order to enter or exit the site. A finding of significance is required in a revised EIR.

Additionally, the overlapping lines along the internal driveway indicate that it is not wide enough to accommodate more than one truck/trailer movement at a time. Queuing/storage space is required on New Public Street C and the EIR has not analyzed these significant impacts. A finding of significance is required in a revised EIR.

4-27 cont'd

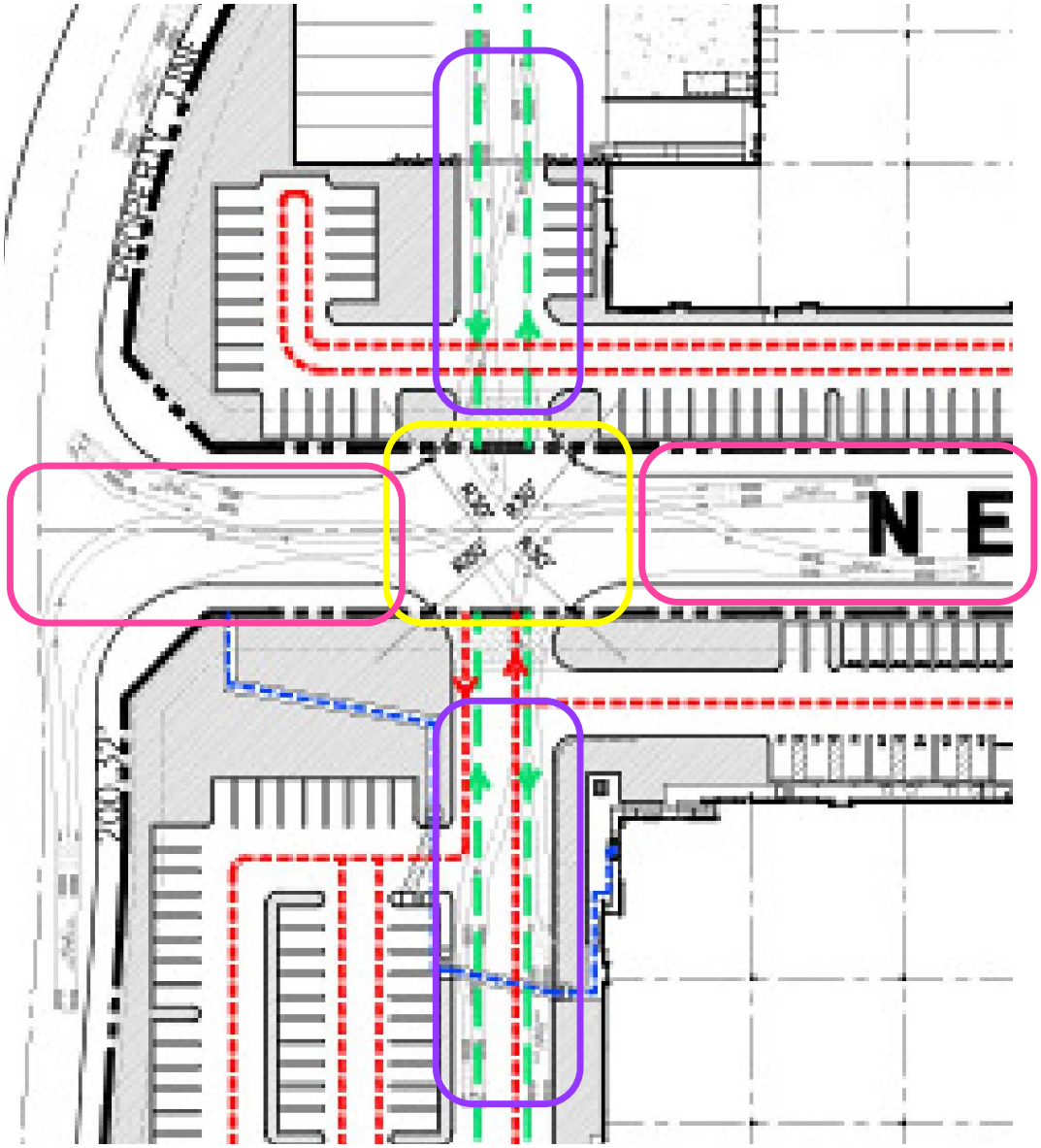


Driveways at Northwest side of Building 4/Southwest side of Building 1 at New Public Street B and New Public Street C: Trucks/trailers entering and exiting the sites require additional maneuvering space across the centerline of each street, meaning that the trucks will need to drive on the "wrong side" of the street into oncoming traffic in order to enter or exit the site. A finding of significance is required in a revised EIR.

Additionally, the overlapping lines along the internal driveway indicate that it is not wide enough to accommodate more than one truck/trailer movement at a time. Passenger car parking stalls are also configured adjacent to the truck/trailer loading dock courts and the project driveway. This layout and design is not conducive to vehicular maneuvering. These parking stalls may be in use at any time and further restrict truck/trailer movement, particularly while trucks/trailers attempt to

maneuver throughout the site. Queuing/storage space is required on New Public Street B and New Public Street C and the EIR has not analyzed these significant impacts. A finding of significance is required in a revised EIR.

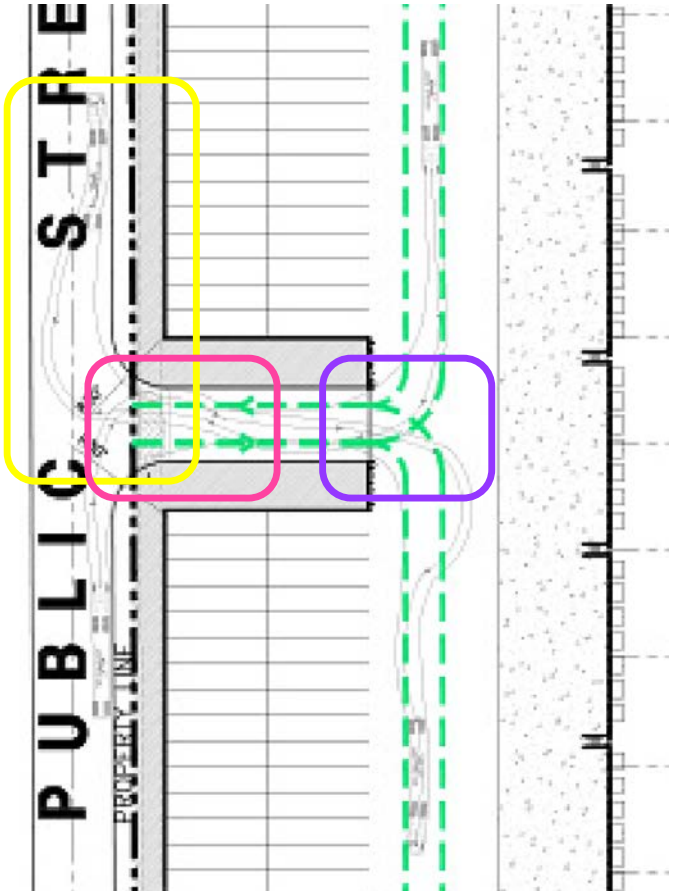
4-33



West side of Building 4 Mid-Block driveway at New Public Street B: Trucks/trailers entering and exiting the site require additional maneuvering space across the centerline of each street, meaning that the trucks will need to drive on the "wrong side" of the street into oncoming traffic in order to enter or exit the site. A finding of significance is required in a revised EIR.

Additionally, the overlapping lines along the internal driveway indicate that it is not wide enough to accommodate more than one truck/trailer movement at a time. Truck/trailer parking stalls are within the truck/trailer loading dock courts in a tandem configuration. This layout and design is not conducive to vehicular maneuvering. These parking stalls that may be in use at any time and further restrict truck/trailer movement, including increasing truck idling as tandem parked trucks require additional time to maneuver, which will also result in increased queuing duration and associated queuing area for trucks/trailer. Queuing/storage space is required on New Public Street B and the EIR has not analyzed these significant impacts. A finding of significance is required in a revised EIR.

4-27 cont'd



Southwest side of Building 4 driveway at New Public Street A: Trucks/trailers entering and exiting the site require additional maneuvering space across the centerline of each street, meaning that the trucks will need to drive on the "wrong side" of the street into oncoming traffic in order to enter or exit the site. A finding of significance is required in a revised EIR.

Additionally, the overlapping lines along the internal driveway indicate that it is not wide enough to accommodate more than one truck/trailer movement at a time. Queuing/storage space is required on New Public Street A and the EIR has not analyzed these significant impacts. A finding of significance is required in a revised EIR.

4-27 cont'd

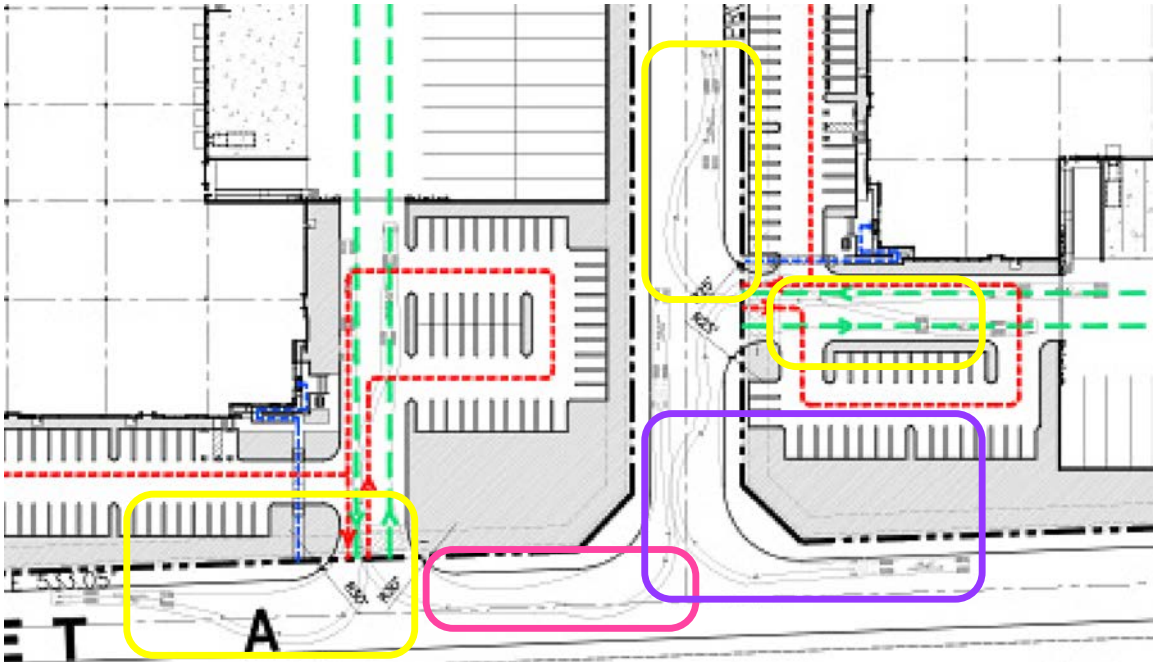


Southeast side of Building 4 driveway at New Public Street A and Southwest side of Building 5 driveway at Yellow Wood Road/New Public Street A: Trucks/trailers entering and exiting the sites require additional maneuvering space across the centerline of each street, meaning that the trucks will need to drive on the "wrong side" of the street into oncoming traffic in order to enter or exit the site. A finding of significance is required in a revised EIR.

Additionally, the overlapping lines along the internal driveway indicate that it is not wide enough to accommodate more than one truck/trailer movement at a time. Queuing/storage space is required

on Yellow Wood Road and New Public Street A and the EIR has not analyzed these significant impacts. A finding of significance is required in a revised EIR.

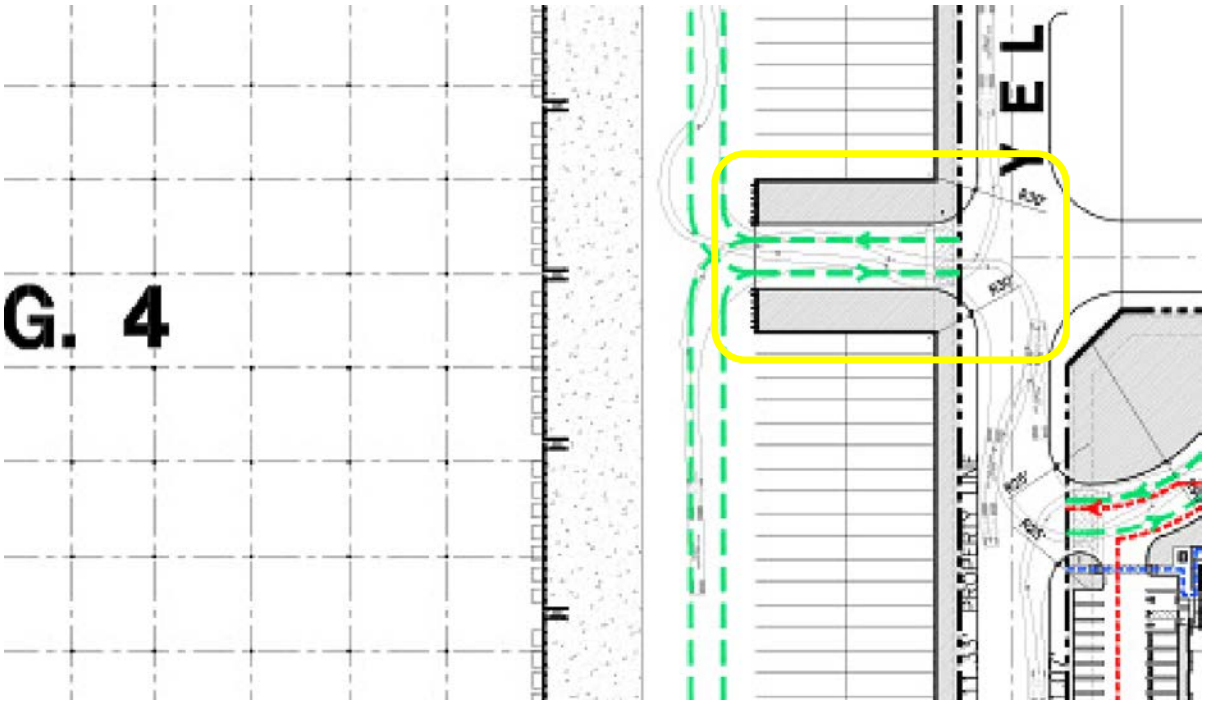
4-27 cont'd



Driveway on East side of Building 4 at intersection of Yellow Wood Road and New Public Street D: Trucks/trailers entering and exiting the site require additional maneuvering space across the centerline of each street, meaning that the trucks will need to drive on the "wrong side" of the street into oncoming traffic in order to enter or exit the site. A finding of significance is required in a revised EIR.

Additionally, the overlapping lines along the internal driveway indicate that it is not wide enough to accommodate more than one truck/trailer movement at a time. Truck/trailer parking stalls are within the truck/trailer loading dock courts in a tandem configuration. This layout and design is not conducive to vehicular maneuvering. These parking stalls that may be in use at any time and further restrict truck/trailer movement, including increasing truck idling as tandem parked trucks require additional time to maneuver, which will also result in increased queuing duration and associated queuing area for trucks/trailer. Queuing/storage space is required on Yellow Wood Road and New Public Street D and the EIR has not analyzed these significant impacts. A finding of significance is required in a revised EIR.

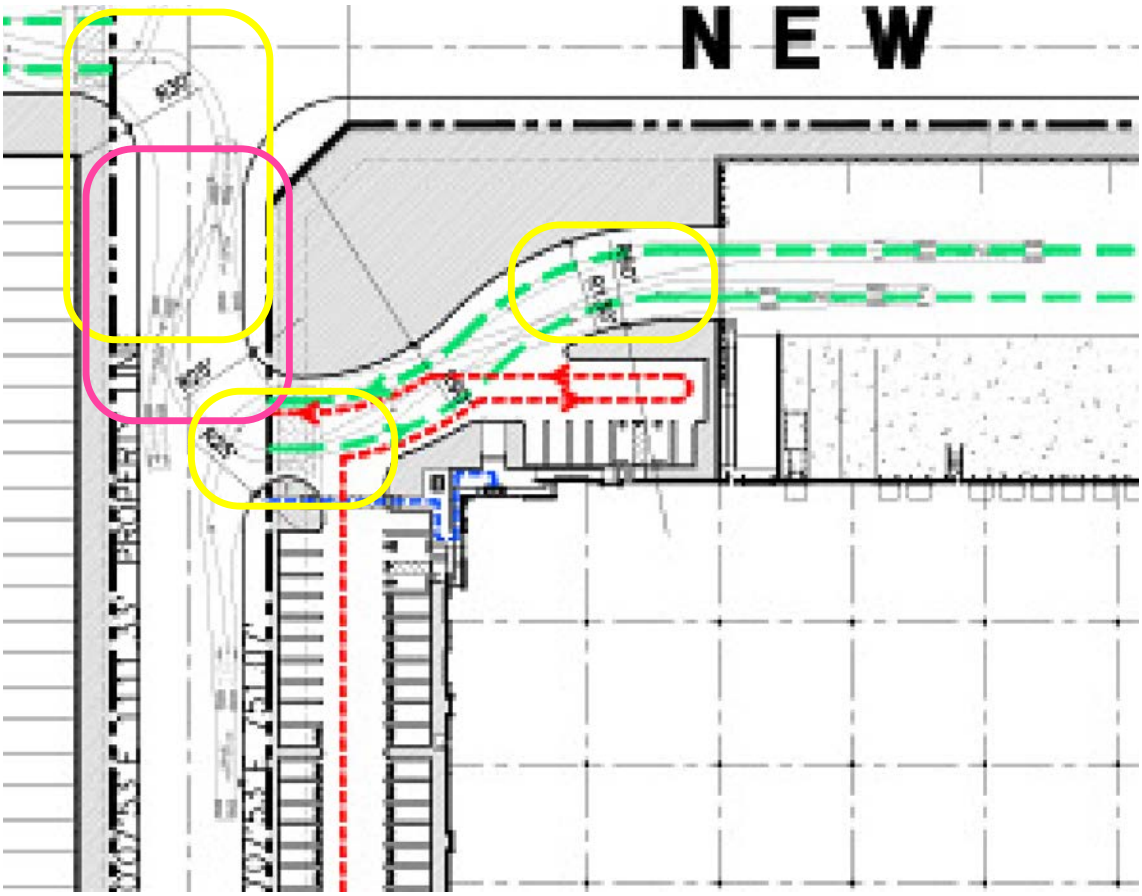
4-27 cont'd



Driveway on Northwest side of Building 5 at Yellow Wood Road and New Public Street D: Trucks/trailers entering and exiting the site require additional maneuvering space across the centerline of each street, meaning that the trucks will need to drive on the "wrong side" of the street into oncoming traffic in order to enter or exit the site. A finding of significance is required in a revised EIR.

Additionally, the overlapping lines along the internal driveway indicate that it is not wide enough to accommodate more than one truck/trailer movement at a time. Queuing/storage space is required on Yellow Wood Road and New Public Street D and the EIR has not analyzed these significant impacts. A finding of significance is required in a revised EIR.

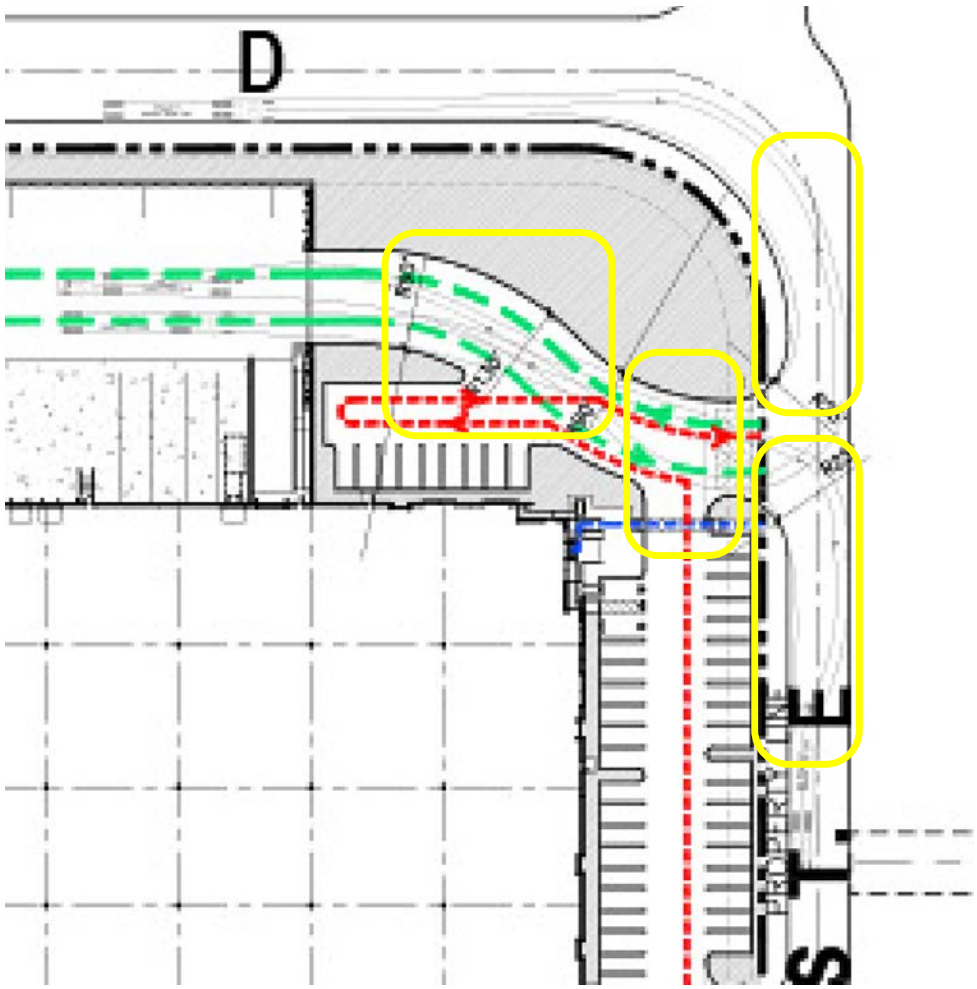
4-27 cont'd



Driveway on Northeast side of Building 5 at New Public Street D/New Public Street E/New Public Street F: Trucks/trailers entering and exiting the site require additional maneuvering space across the centerline of each street, meaning that the trucks will need to drive on the "wrong side" of the street into oncoming traffic in order to enter or exit the site. A finding of significance is required in a revised EIR.

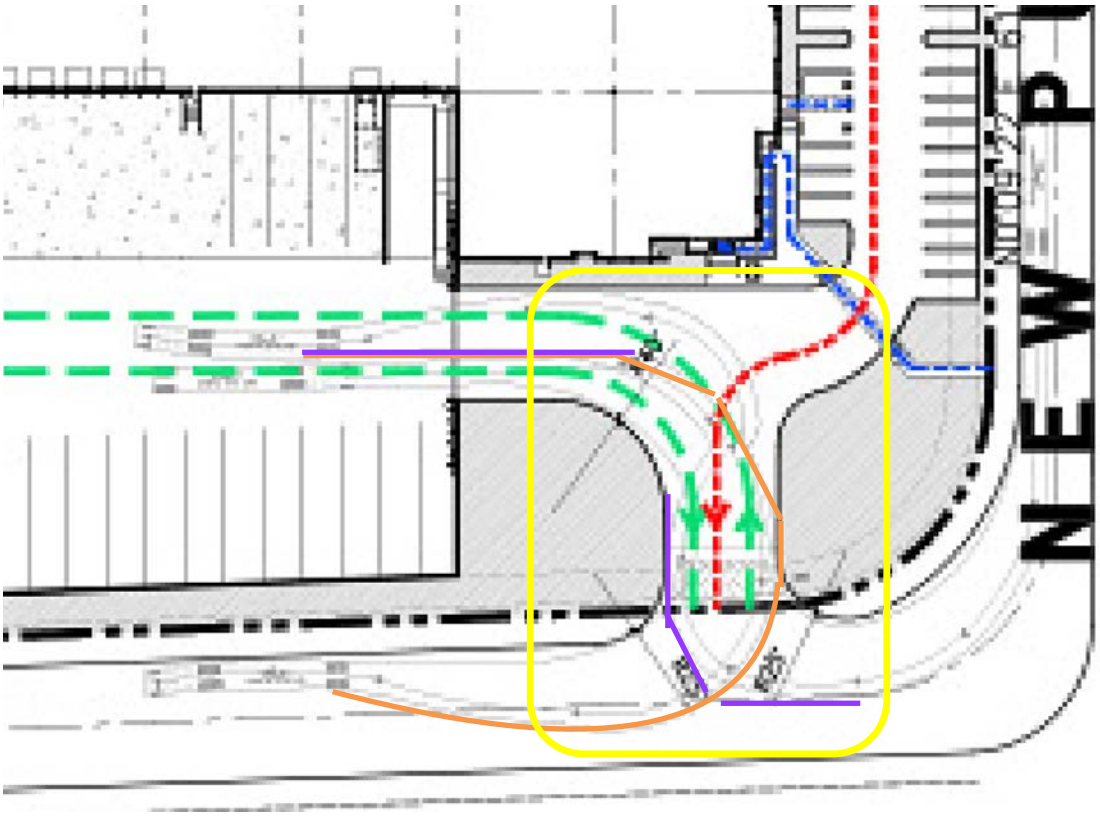
Additionally, the overlapping lines along the internal driveway indicate that it is not wide enough to accommodate more than one truck/trailer movement at a time. Queuing/storage space is required on New Public Street E and New Public Street D and the EIR has not analyzed these significant impacts. A finding of significance is required in a revised EIR.

4-27 cont'd



Driveway on Southeast side of Building 5 at New Public Street A and New Public Street E: Trucks/trailers entering and exiting the site require additional maneuvering space across the centerline of each street, meaning that the trucks will need to drive on the "wrong side" of the street into oncoming traffic in order to enter or exit the site. A finding of significance is required in a revised EIR.

Additionally, the overlapping lines along the internal driveway indicate that it is not wide enough to accommodate more than one truck/trailer movement at a time. Queuing/storage space is required on New Public Street A and New Public Street E and the EIR has not analyzed these significant impacts. A finding of significance is required in a revised EIR.



4-27 cont'd

The EIR states that, "Additionally, clear sight distance would be maintained at all intersections in accordance with City standards." This does not comply with CEQA's requirements for adequate informational documents and meaningful disclosure (CEQA § 15121 and 21003(b)). The EIR has not provided any details regarding the City standards for items related to sight distance, or meaningful analysis of the project's compliance or noncompliance with these requirements. Deferring this environmental analysis required by CEQA to the construction permitting phase is improper mitigation and does not comply with CEQA's requirement for meaningful disclosure and adequate informational documents. A revised EIR must be prepared to include a finding of significance as the EIR has not provided any meaningful evidence to support a less than significant finding.

4-28

The EIR states regarding emergency access that, "Additionally, the proposed project would be required to comply with the 2022 California Fire Code as adopted by reference in Rancho Cucamonga Fire Protection District Ordinance No. FD 58. Appendix D of the Ordinance provides

additional requirements for fire apparatus access roads, including minimum dimensions to allow for adequate access and turning radii for emergency vehicles accessing the project site during operations. Further, the proposed project would be subject to review by the City and responsible emergency service agencies, thus ensuring that the proposed project would be equipped to provide adequate access for emergency responders." This does not comply with CEQA's requirements for adequate informational documents and meaningful disclosure (CEQA § 15121 and 21003(b)). The EIR has not provided any details regarding the requirements for emergency access or meaningful analysis of the project's compliance or noncompliance with these requirements. Deferring this environmental analysis required by CEQA to the construction permitting phase is improper mitigation and does not comply with CEQA's requirement for meaningful disclosure and adequate informational documents. A revised EIR must be prepared to include a finding of significance as the EIR has not provided any meaningful evidence to support a less than significant finding.

4-28 cont'd

5.0 Alternatives

The EIR is required to evaluate a reasonable range of alternatives to the proposed project which will avoid or substantially lessen any of the significant effects of the project (CEQA § 15126.6.) The alternatives chosen for analysis include the CEQA required "No Project/No Development" alternative and only two others - Reduced Project Alternative and Inclusion of Commercial/Retail Use Alternative. The EIR must be revised to include analysis of a reasonable range of alternatives and foster informed decision making (CEQA § 15126.6). This should include alternatives such as development of the site with a project that reduces all of the proposed project's significant and unavoidable impacts to a less than significant level, and a mixed-use project that provides affordable housing and exclusively local-serving commercial uses that may reduce VMT, GHG emissions, and simultaneously improve Air Quality.

4-29

6.1 Growth Inducement and 6.3 Significant and Irreversible Environmental Changes

A revised EIR must be prepared to include an accurate cumulative analysis discussion here to 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

4-30

within the Neo Industrial Employment and Industrial Employment District land use designations, 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.

As noted throughout this comment letter, the project represents a significant amount of growth in the City. SCAG's Connect SoCal Demographics and Growth Forecast[33] notes that the City will add 12,900 jobs from 2019 to 2035. Based on the EIR's calculation of 1,408 jobs, the project represents 10.9% of the City's job growth over 16 years. A single project accounting for this amount of the projected employment growth over 16 years represents a significant amount of growth. The EIR has not provided a cumulative analysis discussion of projects approved since 2019 (SCAG), General Plan adoption, and/or projects "in the pipeline" to determine the City's progress towards SCAG's employment growth forecast or the General Plan buildout scenario. The EIR also concludes that the project exceeds the growth projections of the RTP/SCS and does not consider this information in this analysis. The EIR must be revised to include a finding of significance.

4-30 cont'd

For example, other recent industrial projects such as 9th and Vineyard[34] (823 employees) and El Camino Project[35] (474 employees) combined with the proposed project will cumulatively generate 2,705 employees, which is 20.9% of the City's employment growth forecast through 2035 accounted for only by three recent industrial projects. This total increases exponentially when other industrial and commercial development activity is added to the calculation. A revised EIR must be prepared to include this information for analysis, and also provide a cumulative analysis discussion of projects approved since 2019 (SCAG), General Plan adoption, and projects "in the pipeline" to determine the City's cumulative progress towards employment/population growth forecasts by SCAG and/or the General Plan. The EIR also concludes that the project exceeds the growth

[33] SCAG Connect SoCal Demographics and Growth Forecast https://www.scag.ca.gov/sites/default/files/2024-05/23-2987-tr-demographics-growth-forecast-final-040424.pdf
[34] 9th and Vineyard Development Project https://ceqanet.opr.ca.gov/2019110456/4
[35] El Camino Project https://ceqanet.lci.ca.gov/2023080369/4

projections of the RTP/SCS and is inconsistent with PlanRC (General Plan) and does not consider this information in this analysis. The EIR must be revised to include a finding of significance.

The EIR attempts to artificially skew the project's significant growth inducing impacts downwards in stating that, "According to the City's General Plan, approximately 35,000 new jobs are anticipated to be created within the City through the 20-year planning horizon, or roughly through 2040 (City of Rancho Cucamonga 2021). When considering the number of new jobs associated with the proposed project, it would account for 5 percent of the City's projected job growth over the next 20 years." A single project accounting for 5% of the entire City's job growth over a 20 year period is a significant amount of growth. The EIR excludes analyzing the project within its specific land use context of the EIR and generalizes the growth across the entire City buildout scenario. The project site is located within Focus Area 8: Southeast Industrial Area of the General Plan EIR[36]. Table 5.14-6: Buildout Projections From Proposed Land Use Plan of the General Plan EIR demonstrates that the City will add 5,122 jobs in Industrial land use designations from 2020-2040. Table 1-1: Land Use Development Projections By Focus Area and Remainder of City for Buildout demonstrates that the Remainder of the City (includes Focus Area 8: Southeast Industrial Area) will add 4,927 jobs from 2020-2040. The EIR's calculation of the project's 1,408 new jobs accounts for 27.4% of all jobs in the Remainder of the City. A single project accounting for this amount of the projected employment growth over 20 years represents a significant amount of growth. The proposed project represents a significant amount of employment growth for the entire City and Focus Area 8 accounted for by the General Plan EIR. A revised EIR must be prepared to provide this information for analysis and include a finding of significance because the project would directly induce substantial unplanned growth in an area.

4-30 cont'd

The EIR states that, "…while the project would create economic opportunities by introducing new job opportunities to the project site, it is anticipated that the employment base for the operational phase of the project would come from the existing population *within the City and surrounding area*. As such, because it is anticipated that most of the future employees of the proposed project would *already be living in the City or in nearby areas*, introduction of new employment

[36] https://www.cityofrc.us/sites/default/files/2021-09/City%20of%20Rancho%20Cucamonga_GP%20Update%20and%20CAP_Draft%20EIR_September%202021.pdf

opportunities by the proposed project on the project site would not induce substantial unplanned growth in the area," and concludes impacts are less than significant. This conclusion directly contradicts other significant and unavoidable impacts in the EIR. The EIR concludes that the project exceeds the growth projections of the RTP/SCS and is inconsistent with PlanRC (General Plan) and does not consider this information in this analysis. The EIR also concludes that the project-generated baseline and future year VMT for employees will exceed the applicable thresholds, resulting in significant and unavoidable cumulatively considerable impacts to VMT. The EIR does not define the geographic boundaries of the, "surrounding area," or "nearby areas," but the SU VMT impacts indicate that project employees will commute from further distances than existing employees in the City. The EIR also has not presented any substantial evidence that the City's unemployed workforce or that of the surrounding/nearby areas are qualified or interested in work in the industrial sector. The EIR has not provided any substantial evidence to support a less than significant finding and a finding of significance must be included in a revised EIR.

4-30 cont'd

The EIR also utilizes language that is misleading to the public and decision makers in stating that, "…direct economic growth associated with implementation of the proposed project would be *aligned* with the City's General Plan and would not result in significant long-term physical environmental effects." The term "aligned" was chosen carefully to evoke a connotation that the project is consistent with the General Plan and SCAG growth forecasts. However, as discussed above, the project represents a significant amount of growth in the City and an accurate buildout scenario analysis has not been provided. The EIR concludes that the project exceeds the growth projections of the RTP/SCS and does not consider this information in this analysis. This misleading language must be removed in a revised EIR and replaced with discussion of the project's true growth-inducing impacts and a finding of significance.

Further, the EIR does not address that the project is not a permitted use within the Neo-Industrial Employment District of the General Plan. The General Plan states that in the Neo-Industrial land use designation, "More intensive industrial uses with substantive impacts on adjacent uses are not permitted;" and that, "Low impact industrial uses, such as incubator spaces and small warehouses, that are context-sensitive and calibrated to minimize impacts to adjacent residential uses are preferred." The Industrial Employment District of the General Plan permits uses that are, "a broad

4-31

range of light and medium industrial uses, including light industrial research parks, logistics centers, low impact manufacturing, and machining operations."

The EIR states that, "The proposed industrial distribution facilities, including high-cube fulfillment center (non-sorting), general warehouse, high-cube cold storage warehouse, and accessory office space, are allowable uses within these land use designations." Distribution centers and warehouses are a component of the overall logistics center business chain. Logistics facilitates the overall movement of goods within supply chain management (upstream, downstream, raw materials, finished products, etc.). Distribution is a point on the logistics center business chain as the movement of finished gods for final delivery to the end consumer at their home or commercial stores. Overall, distribution centers *are* logistics centers and a component of the overall logistics process. Therefore, the proposed project is not permitted within the existing Neo-Industrial Employment District land use designation because it is not a small warehouse and it is not context-sensitive or calibrated to minimize impacts. The project requests a Zoning Map Amendment to be located within the Large Warehouse Overlay, which clearly indicates that it is not a small warehouse. The EIR concludes the project will result in significant and unavoidable cumulatively considerable impacts to Air Quality and VMT, indicating that it is an intense industrial use with substantive impacts on adjacent uses. The proposed distribution center use is clearly permitted and intended to be located within the Industrial Employment District as it expressly lists logistics centers as a permitted use. A finding of significance must be included as part of a revised EIR due to this inconsistency.

4-31 cont'd

The EIR states that, "the project would be subject to the energy conservation requirements of the California Energy Code (Title 24, Part 6, of the California Code of Regulations, California's Energy Efficiency Standards for Residential and Nonresidential Buildings) and the California Green Building Standards Code (Title 24, Part 11 of the California Code of Regulations). The California Energy Code provides energy conservation standards for all new and renovated nonresidential buildings constructed in California, and the Green Building Standards Code requires solar access, natural ventilation, and stormwater capture." The State of California lists

4-32

4-32 cont'd

three approved compliance modeling softwares[37] for non-residential buildings: CBECC-Com, EnergyPro, and IES VE. CalEEMod and EMFAC are not listed as approved softwares. The CalEEMod and spreadsheet-based modeling in Appendix B 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. If the project applies for a building permit on or after January 1, 2026, it must comply with the 2025 Building Energy Efficiency Standards, and only CBECC is currently listed as an approved software for the updated standards[38]. Since the EIR did not accurately or adequately model the energy 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 in a revised EIR.

Conclusion

4-33

For the foregoing reasons, GSEJA believes the EIR is flawed and a revised EIR must be prepared for the proposed project and recirculated for public review. Golden State Environmental Justice Alliance requests to be added to the public interest list regarding any subsequent environmental documents, public notices, public hearings, and notices of determination for this project. Send all communications to Golden State Environmental Justice Alliance P.O. Box 79222 Corona, CA 92877.

Sincerely,



Vashon Simien

Blum, Collins & Ho, LLP

[37] 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

[38] California Energy Commission 2025 Energy Code Compliance Software https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2025-energy-code-compliance-software

Attachments:

1. SWAPE Technical Analysis

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

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

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

November 10, 2025

Gary Ho
Blum, Collins & Ho LLP
10250 Constellation Boulevard, Ste. 2300
Los Angeles, CA 90067

Subject: Comments on the Arrow Commerce Center Project (SCH No. 2023110033)

Dear Mr. Ho,

We have reviewed the October 2025 Draft Environmental Impact Report ("DEIR") for the Arrow Commerce Center ("Project") located in the City of Rancho Cucamonga ("City"). The Project proposes to construct 1,830,729-square-feet ("SF") of warehouse and office space and 968 parking spaces on the 94-acre site. 4-34

Our review concludes that the DEIR fails to adequately evaluate the Project's air quality and health risk 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 health risk impacts that the project may have on the environment.

Air Quality

Unsubstantiated Input Parameters Used to Estimate Project Emissions

4-35 When reviewing the Project's CalEEMod output files, provided in the Air Quality, Greenhouse Gas Emissions, and Health Risk Assessment Modeling Results ("AQ Report") provided as Appendix B to the DEIR, we identified several model inputs related to Project construction and operation that are inconsistent with information disclosed in the DEIR. The impacts of these changes are quantified in the section of this letter titled "Updated Analysis Indicates a Potentially Significant Air Quality Impact." A revised EIR should be prepared to include an updated air quality analysis that provides a more detailed evaluation of the impact Project construction and operation may have on local and regional air quality.

Failure to Include Parking Land Use

4-36 The DEIR proposes to construct 968 vehicle parking spaces and 444 truck trailer parking spaces, stating:

"The project also includes loading docks for truck trailers, 968 vehicle parking spaces, 444 truck trailer parking spaces, 6 new public streets, water quality basins, utility infrastructure, and exterior lighting and signage. The proposed project would develop the project site with 44 acres of paved or other impervious surface area and provide approximately 10 percent landscape coverage" (p. ES-2).

Review of the CalEEMod output files demonstrates that the "Rancho Arrow Route Construction Detailed Report" model does not include any parking lot space (see screenshot below) (Appendix B, pp. 24, 25).

4-36 cont'd

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	1,561	1000sqft	35.8	1,561,256	275,585	—	—	—
Refrigerated Warehouse-No Rail	173	1000sqft	3.98	173,473	39,746	—	—	—
General Office Building	96.0	1000sqft	2.20	96,000	37,431	—	—	—

However, further review of the CalEEMod output files demonstrates that the "Arrow Commerce Center Detailed Report" operational model includes 44 acres of parking lot space (see screenshot below) (Appendix B, pp. 77, 78).

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	1,561	1000sqft	35.8	1,561,256	8.00	0.00	—	—
Refrigerated Warehouse-No Rail	173	1000sqft	3.98	173,473	0.00	0.00	—	—
General Office Building	96.0	1000sqft	2.20	96,000	0.00	0.00	—	—
Parking Lot	44.0	Acre	44.0	0.00	0.00	0.00	—	—

The "Rancho Arrow Route Construction Detailed Report" construction model therefore underestimates the proposed parking lot space by 44 acres. This underestimation presents an issue, as the land use size feature is used throughout CalEEMod to determine default variable and emission factors that affect the model's construction calculations.[1] By underestimating the size of the proposed mixed-use space, the model underestimates the Project's construction emissions and should not be relied upon to determine Project significance.

Underestimated Number of Demolition Hauling Trips

4-37

The DEIR indicates that the Project "includes the demolition and site clearing of existing paved surface areas" (p. ES-2). Review of the CalEEMod output files demonstrates that the "Rancho Arrow Route Construction Detailed Report" model includes 555,664-SF of tons of demolition debris (see screenshot below) (Appendix B, pp. 62).

[1] "CalEEMod User Guide." CAPCOA, April 2022, available at: https://www.caleemod.com/documents/user-guide/01_User%20Guide.pdf, p. 19.

Phase Name	Material Imported (Ton of Debris)	Material Exported (Ton of Debris)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	555,664	—
Grading	—	10,000	80.7	0.00	—
Concrete Imports	86,900	—	0.00	0.00	—
Paving	0.00	0.00	0.00	0.00	44.0

However, further review of the model demonstrates that there are zero hauling trips for the construction demolition phase (see screenshot below) (Appendix B, pp. 60).

4-37

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	0.00	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT

Note: the above screenshot does not capture the entire table.

This is incorrect, as according to the CalEEMod User's Guide:

> "Hauling trips are based on the amount of material that is demolished (as defined in the Demolition screen) or imported or exported (as defined in the Dust from Material Movement screen) assuming a truck can handle 16 cubic yards of material."[2]

Therefore, CalEEMod calculates a default number of hauling trips based upon the amount of demolition material inputted into the model. As the model includes only zero demolition hauling trips, we can assume that the default number of hauling trips was erroneously changed from the default calculation to zero. As such, the model fails to adequately account for the demolition inputted into the model and required for Project construction.

This omission presents an issue, as CalEEMod uses the number of hauling trips to estimate construction-related emissions associated with on-road vehicles and truck traffic.[3] By excluding the hauling trips required for demolition, the model underestimates the Project's construction-related emissions and should not be relied upon to determine Project significance.

Incorrect Application of Construction Engine Tier 4 Final Mitigation

The "Rancho Arrow Route Construction Detailed Report" model includes the following construction mitigation measure (see screenshot below) (Appendix B, pp. 25).

4-38

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers

[2] CalEEMod User Guide." CalEEMod 2022.1, April 2022, *available at:* https://www.caleemod.com/documents/user-guide/CalEEMod_User_Guide_v2022.1.pdf, p. C-19.
[3] CalEEMod User Guide." CalEEMod 2022.1, April 2022, *available at:* https://www.caleemod.com/documents/user-guide/CalEEMod_User_Guide_v2022.1.pdf, p. 36.

Accordingly, the "Rancho Arrow Route Construction Detailed Report" model also includes changes to the off-road construction equipment input parameters and assumes that the Project's off-road equipment fleet would meet Tier 4 Final emissions standards (see screenshot below) (Appendix B, pp. 58, 59).

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Final	2.00	8.00	367	0.40
Demolition	Excavators	Diesel	Tier 4 Final	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.00	8.00	33.0	0.73
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Back	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Tier 4 Final	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Tier 4 Final	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Tier 4 Final	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Back hoes	Diesel	Tier 4 Final	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Tier 4 Final	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.00	6.00	37.0	0.48

Regarding the use of advanced engine tiers, the DEIR includes the following construction equipment list (see excerpt below) (p. 3.2-17).

4-38 cont'd

Table 3.2-6 Construction Equipment Assumptions

Phase Name	Equipment Type	Engine Tier	Quantity	Hours of Use Per Day	Horsepower
Demolition and Site Clearing	Rubber Tired Dozers	Tier 4 Final	2	8	367
	Excavators	Tier 4 Final	3	8	36
	Concrete/Industrial Saws	Tier 4 Final	1	8	33
Grading and Excavation	Graders	Tier 4 Final	1	8	148
	Excavators	Tier 4 Final	2	8	36
	Tractors/Loaders/Backhoes	Tier 4 Final	2	8	84
	Scrapers	Tier 4 Final	2	8	423
	Rubber Tired Dozers	Tier 4 Final	1	8	367
Building Construction and Infrastructure Improvements	Forklifts	Tier 4 Final	3	8	82
	Generator Sets	Fleet Average	1	8	14
	Cranes	Tier 4 Final	1	7	367
	Welders	Tier 4 Final	1	8	46
	Tractors/Loaders/Backhoes	Tier 4 Final	3	7	84
Concrete Imports			No equipment		
Paving	Pavers	Tier 4 Final	2	8	81
	Paving Equipment	Tier 4 Final	2	8	89
	Rollers	Tier 4 Final	2	8	36
Architectural Coating	Air Compressors	Tier 4 Final	1	6	37

Source: Equipment list, engine tier, and equipment quantity Provided by BTC III Arrow Route CC, LP, 2023; adapted by Ascent in 2024.

4-38 cont'd

However, the inclusion of more stringent emissions standards remains unsupported as the DEIR does not explicitly require advanced engine tiers, specifically Tier 4 Final, through a formal mitigation measure. According to the Association of Environmental Professionals ("AEP") *CEQA Portal Topic Paper* on mitigation measures:

> "While not 'mitigation', a good practice is to include those project design feature(s) that address environmental impacts in the mitigation monitoring and reporting program (MMRP). Often the MMRP is all that accompanies building and construction plans through the permit process. If the design features are not listed as important to addressing an environmental impact, it is easy for someone not involved in the original environmental process to approve a change to the project that could eliminate one or more of the design features without understanding the resulting environmental impact."[4]

As the inclusion of Tier 4 Final emissions standards on the Project site is not formally included as a mitigation measure, we cannot guarantee that it would be implemented, monitored, and enforced on the Project site. By including Tier 4 Final emissions standards without properly committing to its implementation, the model may underestimate the Project's construction emissions and should not be relied upon to determine Project significance.

Updated Analysis Indicates a Potentially Significant Air Quality Impact

4-39

To more accurately estimate the Project's construction-related emissions, we prepared a construction CalEEMod model, using the Project-specific information provided by the DEIR. We included the parking land use, omitted the reduction to demolition hauling trips, and excluded the construction-related mitigation and incorrect application of Tier 4 Final emissions standards. All other inputs remain consistent with the DEIR's model.

Our updated analysis estimates that the Project's construction-related volatile organic compounds ("VOC") emissions exceed the South Coast Air Quality Management District ("SCAQMD") daily threshold of 75 pounds per day ("lbs/day") (see table below).

[4] "CEQA Portal Topic Paper Mitigation Measures." AEP, February 2020, *available at:* https://ceqaportal.org/tp/CEQA%20Mitigation%202020.pdf, p. 6.

4-39 cont'd

SWAPE Criteria Air Pollutant Emissions Estimates	
Construction	**VOC** (lbs/day)
DEIR	31
SWAPE	320
SCAQMD Threshold	**75**
Exceeds?	**Yes**

According to our analysis, the construction-related VOC emissions are estimated to be approximately 320 lbs/day, exceeding the SCAQMD daily threshold. This finding indicates a potentially significant air quality impact that the DEIR did not identify or address. In our opinion, a revised EIR should be conducted to provide a more accurate evaluation of the potential air quality impact from the Project on the environment and mitigate significant impacts accordingly.

4-40

Failure to Implement All Feasible Mitigation to Reduce Emissions

The DEIR estimates that the Project's operational VOC emissions would exceed the applicable SCAQMD threshold (see screenshot below) (p. 3.2-32, Table 3.2-14).

Table 3.2-14 Estimated Mitigated Operational Emissions (Mass Regional Pounds Per Day)

Emissions Source	VOC	NO_X	CO	PM_{10}	$PM_{2.5}$	SO_2
Area [1]	44	—	—	—	—	—
Energy	—	—	—	—	—	—
Medium Duty Trucks[2]	<1	4	1	1	<1	<1
Heavy Duty Trucks[2]	<1	33	8	6	2	<1
Workers	10	11	134	31	8	<1
Yard Trucks[3]	—	—	—	—	—	—
TRUs[4]	—	—	—	—	—	—
Forklifts[3]	—	—	—	—	—	—
Maximum Daily	**55**	**47**	**143**	**38**	**10**	**1**
SCAQMD Regional Operations Threshold	**55**	**55**	**550**	**150**	**55**	**150**
Exceeds Threshold?	**Yes**	**No**	**No**	**No**	**No**	**No**

Notes: VOC = reactive organic gases; NO_X = oxides of nitrogen; CO = carbon monoxide; $PM_{2.5}$ = fine particulate matter; PM_{10} = respirable particulate matter; SO_2 = sulfur dioxide.

[1] Assumes landscaping equipment will be 100 percent zero-emissions at Opening Day (Mitigation Measure 3.2-2b).

[2] Assumes 50 percent of trucks are zero-emissions at Opening Day (Mitigation Measure 3.2-2b).

[3] Assumes 100 percent of yard equipment is zero-emissions at Opening Day (Mitigation Measure 3.2-2b).

[4] Assumes 100 percent of TRUs would be plugged in and TRUs would not run on diesel at any point on-site (Mitigation Measure 3.2-2c).

Source: Modeled by Ascent in 2025.

The DEIR concludes that the impacts associated with operation of the Project would be significant-and-unavoidable, stating:

> "After the implementation of Mitigation Measure 3.2-2b, through 3.2-2d, VOC emissions would not be reduced to below thresholds, but NOx and CO emissions would be reduced below the

thresholds with mitigation (Table 3.2 - 14). Therefore, even with implementation of mitigation, operational impact s related to VOC emissions would be significant and unavoidable" (p. 3.2-32).

While we agree that the Project would result in significant air quality impacts, the DEIR's assertion that this impact is significant-and-unavoidable is unreliable. 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."[5]

4-40

As such, the DEIR is required under CEQA to implement all feasible mitigation to reduce impacts to a less-than-significant level. To reduce the Project's air quality 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.

Disproportionate Health Risk Impacts of Warehouses on Surrounding Communities

The development of the proposed Project may contribute to the disproportionate health risk impact that warehouses already pose on community members living, working, and going to school within the immediate area of the Project site. According to the SCAQMD, communities of color living within a half mile of warehouses face higher health risks, including increased rates of asthma and heart attacks, along with a greater environmental burden.[6]

4-41

Specifically, the SCAQMD found that more than 2.4 million people live within a half mile radius of at least one warehouse, and that those areas not only experience increased rates of asthma and heart attacks, but are also disproportionately Black and Latino communities below the poverty line.[7] Another study indicates "neighborhoods with lower household income levels and higher percentages of minorities are expected to have higher probabilities of containing warehousing facilities."[8] Furthermore, a report authored by the Inland Empire-based People's Collective for Environmental Justice and

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[5] "Cal. Code Regs. tit. 14 § 15096." California Legislature, 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-7-eir-process/section-15096-process-for-a-responsible-agency.

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

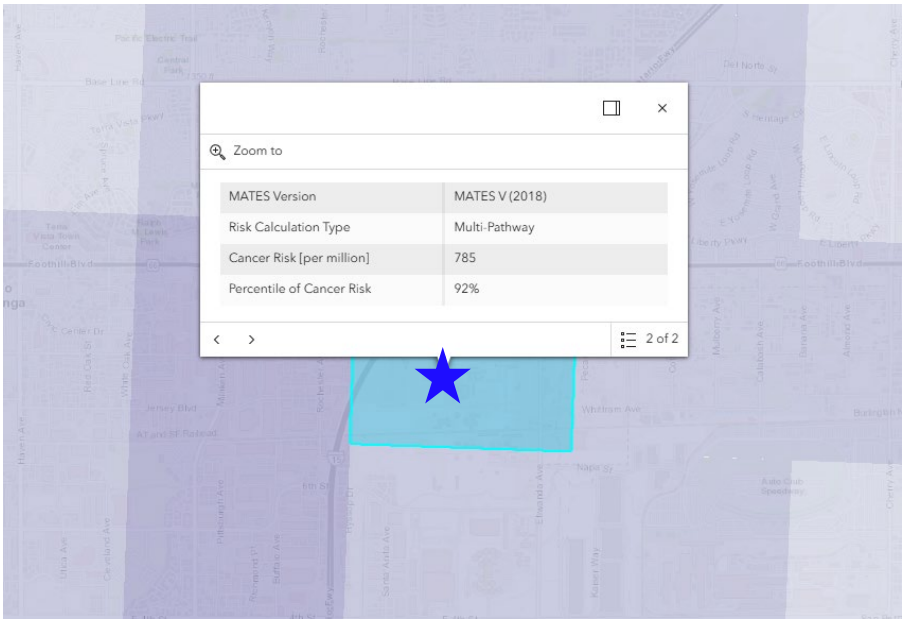
[7] "Southern California warehouse boom a huge source of pollution. Regulators are fighting back." Los Angeles Times, May 2021, *available at:* https://www.latimes.com/california/story/2021-05-05/air-quality-officials-target-warehouses-bid-to-curb-health-damaging-truck-pollution.

[8] "Location of warehouses and environmental justice: Evidence from four metros in California." Metro Freight Center of Excellence, January 2018, *available at:* https://www.metrans.org/assets/research/MF%201.1g_Location%20of%20warehouses%20and%20environmental%20justice_Final%20Report_021618.pdf, p. 21.

4-41 cont'd

University of Redlands explains that the warehouse and logistics industry is expanding rapidly, with many new projects being built in low-income communities of color. These projects attract high volumes of polluting truck traffic, which emits harmful nitrogen oxide and particulate matter, contributing to severe health issues like asthma, COPD, cancer, and premature death.[9] Despite these public health impacts, warehouse development continues to accelerate, with the Inland Empire adding 10 to 25 million square feet of new industrial space annually.[10]

The Data Visualization Tool for Mates V, a monitoring and evaluation study conducted by SCAQMD, demonstrates that the County already exhibits a heightened residential carcinogenic risk from exposure to air toxics.[11] Specifically, the location of the Project site is in the 92nd percentile of highest cancer risks in the South Coast Air Basin ("SCAB"), with a cancer risk of 785 in one million (see screenshot below).[12]



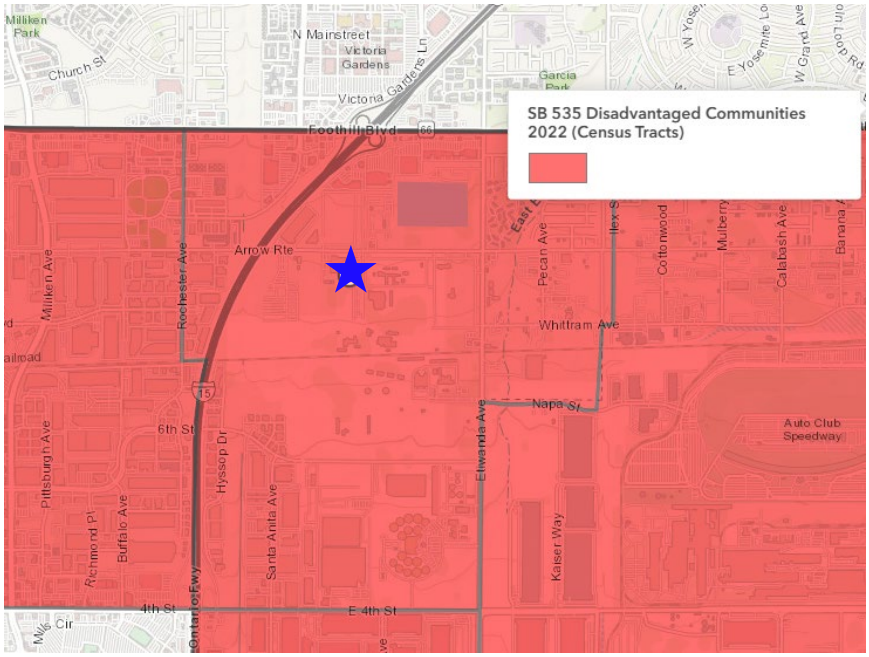
[9] "Warehouses, Pollution, and Social Disparities: An analytical view of the logistics industry's impacts on environmental justice communities across Southern California." People's Collective for Environmental Justice, April 2021, *available at:* https://earthjustice.org/sites/default/files/files/warehouse_research_report_4.15.2021.pdf,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

[10] "2020 North America Industrial Big Box Review & Outlook." CBRE, 2020, *available at:* https://www.cbre.com/-/media/project/cbre/shared-site/insights/local-responses/industrial-big-box-report-inland-empire/local-response-2020-ibb-inland-empire-overview.pdf, p. 2.

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

[12] "Gridded Cancer Risk." SCAQMD, *available at:* https://experience.arcgis.com/experience/79d3b6304912414bb21ebdde80100b23/page/Main-Page/?data_id=dataSource_112-7c8f2a4db79b4a918d46b4e8985a112b%3A20315&views=Click-tabs-for-other-data%2CGridded-Cancer-Risk.

Additionally, according to CalEnviroScreen's Senate Bill ("SB") 535 Disadvantaged Communities Map, the Project site is identified as a designated disadvantaged community (see screenshot below).[13]



4-42

SB 535 provides funding for development projects that provide a benefit to disadvantaged communities. CalEPA has been given the responsibility for identifying those communities based on "geographic, socioeconomic, public health, and environmental hazard criteria."[14] The Project may therefore worsen disproportionate health risks for community members within the immediate area, a concern underscored by the mandates of SB 1000. SB 1000, enacted to address environmental justice concerns, requires local governments to integrate environmental justice elements into their planning processes, particularly focusing on reducing health risks for disadvantaged communities.[15] As the DEIR indicates that the proposed Project site is located approximately 0.4 miles from residential receptors (p. 3.2-20), the Project should comply with the objectives of SB 1000.

In accordance with the California Department of Justice ("CA DOJ") guidelines, the effects of greenhouse gas emissions and air pollutants from warehouses should be evaluated cumulatively. The CA DOJ states that cumulative impacts should be evaluated by considering the project's incremental effects alongside past, present, and future projects, even if the project alone does not exceed significance

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

[14] "Final Designation of Disadvantaged Communities." CalEPA, *available at:* https://calepa.ca.gov/wp-content/uploads/2022/05/Updated-Disadvantaged-Communities-Designation-DAC-May-2022-Eng.a.hp_-1.pdf, p. 1.

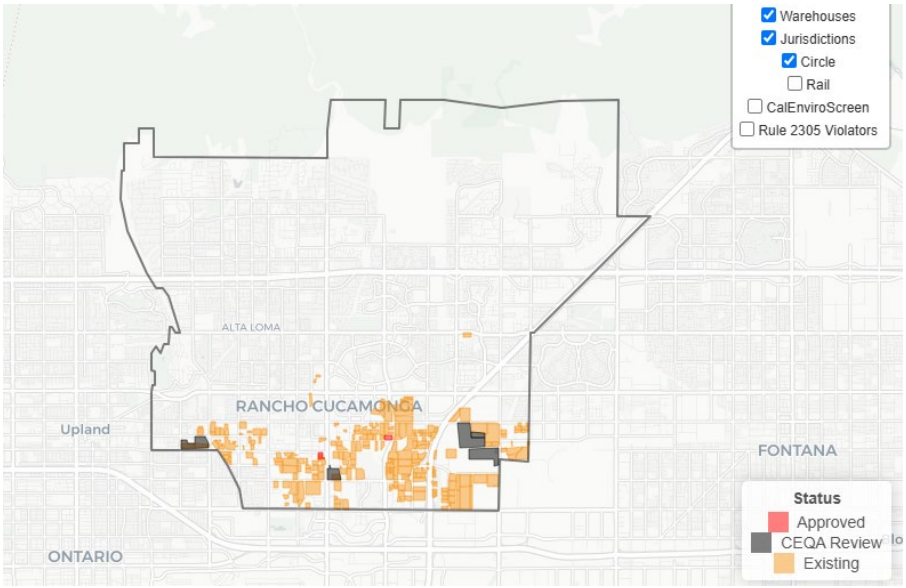
[15] "Environmental Justice in Local Land Use Planning." CA DOJ, *available at:* https://oag.ca.gov/environment/sb1000.

thresholds.[16] To more adequately assess the Project's impact on disadvantaged communities, both existing and future warehouse developments should be considered during the environmental review process.

As the Project site is in an SB 535 disadvantaged community that experiences disproportionately high levels of pollution, we recommend the DEIR reevaluate the Project's cumulative health risks to more sufficiently align with CA DOJ guidelines and SB 1000 environmental justice requirements.

Lastly, the Warehouse Cumulative Impact Tool for Community dashboard ("Warehouse CITY"), developed by the Redford Conservancy at Pitzer College and Radical Research LLC, is a tool that visualizes and quantifies existing, potential, and approved warehouse locations across Southern California. Review of Warehouse CITY reveals that there are 252 existing warehouses currently in Rancho Cu, 2 more that have been approved, and 5 that are currently under CEQA review (see screenshot below).[17]

4-42 cont'd



The presence of numerous existing warehouses in the City underscores the need to reassess the Project's cumulative health risks pursuant to CA DOJ guidelines and SB 1000 environmental justice requirements.

Diesel Particulate Matter Emissions Inadequately Evaluated

4-43 The DEIR concludes that the proposed Project would result in a less-than-significant health risk impact based on a quantified operational health risk assessment ("HRA"). Specifically, the DEIR estimates that

[16] "Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act." CA DOJ, available at: https://oag.ca.gov/sites/all/files/agweb/pdfs/environment/warehouse-best-practices.pdf, p. 6.
[17] "Warehouse and Air Quality Mapping." Pitzer College & Radical Research LLC, *available at*: https://radicalresearch.shinyapps.io/WarehouseCITY/.

the maximum incremental cancer risk posed to nearby, existing residential sensitive receptors associated with exposure to diesel particulate matter ("DPM") emissions during Project operation would be 2-in one million after mitigation, which would not exceed the SCAQMD significance threshold of 10 in one million (see excerpt below) (p. 3.2-35, Table 3.2-18).

Table 3.2-18 Estimate of Mitigated Operations-Related Health Risk (chances per million)

Risk Type	Residential	School	Park
Maximum Incremental Cancer Risk	2	0.02	0.05
Chronic Hazard Index	<0.001	<0.001	<0.001
Cancer Risk Threshold	**10**	**10**	**10**
Hazard Index Threshold	**1.0**	**1.0**	**1.0**
Exceed Thresholds?	**No**	**No**	**No**

Source: Modeled by Ascent in 2025.

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

First, the DEIR's operational HRA underestimates Fraction of Time At Home ("FAH") values for third trimester, infant, and child receptors. It uses an FAH value of 0.85 for third trimester (age -0.25 to 0) and infant (age 0 to 2) receptors, and 0.72 for child receptors (age 2 to 16) (see excerpt below) (p. 3.2-23, Table 3.2-9).

4-43 cont'd

Table 3.2-9 Cancer Risk Exposure Factors by Age Group and By Receptor Type

Parameter	Abbr.	Residential				School	Park	
		3rd Trimester	0<2	2<16	16>30	2<16	0<2	2<16
Daily Breathing Rate (mg/kg/day)[a]	DBR	361	1,090	572	261	640	1,200	640
Inhalation Absorption Factor (unitless)	A	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Exposure Frequency (unitless)[b]	EF	0.96	0.96	0.96	0.96	0.16	0.08	0.08
Conversion Factor (µg to mg, L to m3)	CF	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
Age Sensitivity Factor (unitless)[c]	ASF	10	10	3	1	3	10	3
Exposure Duration (years)	ED	0.25	2	14	13.75	14	2	7
Averaging Time for Lifetime (years)[d]	AT	70	70	70	70	70	70	70
Fraction of Time at Home (unitless)[e]	FAH	0.85	0.85	0.72	0.73	n/a	1.0	1.0
Adjustment Factor (unitless)[f]	AF	n/a	n/a	n/a	n/a	1.0	n/a	n/a
Cancer Conversion Factor (unitless)[g]	CCF	1.00E+06	1.00E+06	1.00E+06	1.00E+06	1.00E+06	1.00E+06	1.00E+06
Cancer Potency Factor (mg/kg/day)-1	CPFh	1.1	1.1	1.1	1.1	1.1	1.1	1.1

[a] For residential, OEHHA Table 5.7, 95th percentile for 3rd Tri and 0<2, 80th percentile all other age groups. For park and school, OEHHA Table 5.8, 95th percentile, moderate activity for 0<2, 2<9, and 2<16.

[b] Residential exposure based on 350 days per year. School exposure duration based on 180 days per year and 8 hours per day. Park exposure based on 350 days per year and 2 hours per day. These receptor types used the same approach as the residential analysis, but adjustments to the exposure duration for each were necessary because residential analysis is based on daily exposure of 24 hours.

[c] OEHHA 2015, Table 8.3.

[d] Averaging time is always 70 years, as defined by OEHHA, as this is the assumed average lifespan. Exposure duration (30 years for differs, 24 years for schools, 9 years for parks) differs for averaging time in that exposure duration defines a person's timeframe at a given location (at a specific home, at a specific school), whereas averaging time definitely a person's expected lifetime.

[e] FAH includes because no school receptors are within the 1 in a million isopleth. School and park analysis used the same approach as the residential analysis. A value of 1.0 is used for school and park uses.

[f] Adjustment factor not included because project sources operate 24 hours per day.

[g] Conversion factor used to convert cancer risk to chances per million.

Source: OEHHA 2015.

The FAH values for third trimester, infant, and child receptors in the HRA are incorrect. SCAQMD guidance states that for screening purposes, "the FAH is set to 1 for individuals from the third trimester to age 16, assuming children stay near home for school or daycare with no time discount."[18] Per SCAQMD guidance, the HRA Report should have followed this guidance and used an FAH of 1 for third trimester, infant, and child receptors. By using unsupported FAH values, the DEIR may underestimate the cancer risk to nearby sensitive receptors from Project operation.

Second, by failing to prepare a quantified construction HRA, the DEIR is inconsistent with CEQA's requirement to correlate the increase in emissions generated by the Project to the adverse impacts on human health caused by those emissions. Under CEQA, agencies must make a "reasonable effort to substantively connect a project's air quality impacts to likely health consequences."[19] The DEIR also fails to align with the CA DOJ guidelines for warehouse best practices, which recommends that all potential warehouse projects prepare a quantitative HRA in accordance with the Office of Environmental Health Hazard Assessment ("OEHHA"), the organization responsible for providing guidance on conducting HRAs in California.[20] To comply with these requirements, an HRA should have been prepared to assess the potential health risks to nearby sensitive receptors from DPM emissions generated during both construction and operation.

4-43 cont'd

Third, while the DEIR includes an HRA evaluating the health risk impacts to nearby, existing receptors as a result of Project operation, the DEIR fails to evaluate the combined lifetime cancer risk to nearby receptors as a result of Project construction and operation together. This is incorrect and, as a result, the DEIR's evaluation cannot be relied upon to determine Project significance. According to OEHHA guidance, "the excess cancer risk is calculated separately for each age grouping and then summed to yield cancer risk at the receptor location."[21] The DEIR should have quantified the Project's construction and operational health risks, as well as compared the combined construction and operational cancer risk to the SCAQMD threshold of 10 in one million.

Mitigation

Feasible Mitigation Measures Available to Reduce Emissions

4-44 The DEIR is required under CEQA to implement all feasible mitigation to reduce the Project's potential impacts. As demonstrated above, the Project would result in potentially significant air quality impact that should be mitigated further.

[18] "Risk Assessment Procedures." SCAQMD, August 2017, available at: http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1401/riskassessmentprocedures_2017_080717.pdf, p. 7.
[19] "Sierra Club v. County of Fresno." Supreme Court of California, December 2018, *available at:* https://law.justia.com/cases/california/supreme-court/2018/s219783a.html
[20] "Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act." CA DOJ, *available at*: https://oag.ca.gov/sites/all/files/agweb/pdfs/environment/warehouse-best-practices.pdf, p. 6.
[21] "Guidance Manual for preparation of Health Risk Assessments." OEHHA, February 2015,available at: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf p. 8-4.

To reduce the VOC emissions associated with Project construction and operation, we recommend the DEIR consider incorporating the following mitigation measures:[22]

- Recycle leftover paint. Take any leftover paint to a hazardous waste center; do not mix leftover water-based and oil-based paints.
- Keep lids closed on all paint containers when not in use to prevent VOC emissions and excessive odors.
- For water-based paints, clean up with water only. Whenever possible, do not rinse the cleanup water down the drain or pour it directly into the ground or the storm drain
- Use compliant low-VOC cleaning solvents to clean paint application equipment.
- Keep all paint- and solvent-laden rags in sealed containers to prevent VOC emissions.
- Contractors shall construct/build with materials that do not require painting and use pre-painted construction materials to the extent practicable.
- Use high-pressure/low-volume paint applicators with a minimum transfer efficiency of at least 50 percent or other application techniques with equivalent or higher transfer efficiency.

4-44 cont'd

The United States Environmental Protection Agency recommends conducting calculations for coverage area and thinning ratios prior to purchasing paints. By applying these calculations, the appropriate quantity of paint can be acquired, thereby helping to minimize waste and optimize resource use.[23]

To reduce construction VOC emissions, the California Department of Public Health ("CDPH") recommends the use of:[24]

- Natural materials such as solid wood products (e.g., hard wood flooring and wood paneling), natural stone (e.g., granite and marble), ceramic tile, and glass.
- Composite wood products that comply with the California Air Resources Board's ("CARB") Airborne Toxic Control Measure for formaldehyde.
- Interior paints, coatings, adhesives, and sealants that comply with South Coast AQMD Rule 1168 or CARB's Suggested Control Measure for Architectural Coatings.
- Flooring materials that are certified as low emitting under the CDPH Standard Method v1.2 or equivalent.
- Sealer on the surface of spray-on fireproofing to reduce adsorption of VOCs using a low-VOC sealer, if necessary.

[22] "Banning Commerce Center Project." Kimley-Horn and Associates, Inc., June 2024, *available at*: https://ceqanet.opr.ca.gov/2022090102/2; Draft Environmental Impact Report, p. 1-7.
[23] "Industrial Surface Coating." Emissions Inventory Improvement Program, September 1997, *available at*: https://www.epa.gov/sites/default/files/2015-08/documents/iii08.pdf, Volume III, Chapter 8, p. 8.3-1.
[24] "Reducing occupant exposure to volatile organic compounds (VOCs) from indoor sources: Guidelines for building occupants." California Department of Public Health, July 1996, *available at*: https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/CDPH%20Document%20Library/reducing_occupant_exposure_vocs_guidelines_ADA.pdf.

4-44 cont'd

An additional mitigation measure that may reduce the impact from operational ROG/VOC emissions is to implement a mechanical ventilation system meeting ASHRAE Standards 62.1 and 62.2. [25] HVAC systems should include MERV 13 or higher filters to reduce indoor pollutant exposure. Prior to occupancy, the building should undergo a flush-out period with HVAC systems operating at full capacity for at least 48 hours to remove residual VOCs and improve indoor air quality.

Provided above are several mitigation measures that would reduce Project-related VOC emissions. These measures offer a cost-effective, feasible way to incorporate lower-emitting design features into the proposed Project, which subsequently reduces emissions released during Project construction and operation.

A revised EIR should be prepared that includes all feasible mitigation measures, as well as an updated air quality analysis 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

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

Sincerely,



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



Paul E. Rosenfeld, Ph.D.

[25] *Ibid.*, p. xii.

Attachment A: CalEEMod Output Files
Attachment B: Matt Hagemann CV
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Arrow Commerce Center Detailed Report

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1.1. Basic Project Information

Data Field	Value
Project Name	Arrow Commerce Center
Construction Start Date	1/5/2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.8
Precipitation (days)	6.4
Location	12541 Arrow Route, Rancho Cucamonga, CA 91739, USA
County	San Bernardino-South Coast
City	Rancho Cucamonga
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5283
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.31

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	1,561	1000sqft	36	1,561,256	275,585	—	—	—

Refrigerated Warehouse-No Rail	173	1000sqft	4.0	173,000	39,746	—	—	—
General Office Building	96	1000sqft	2.2	96,000	37,431	—	—	—
Parking Lot	44	Acre	44	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	320	320	23	73	0.09	0.51	12	13	0.48	3.0	3.5	—	21,974	21,974	1.2	1.8	60	22,595
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	320	320	80	106	0.27	2.3	45	47	2.1	9.9	12	—	39,824	39,824	3.0	4.3	3.1	40,935
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	50	50	21	47	0.08	0.49	11	12	0.46	2.8	3.2	—	16,958	16,958	0.80	1.5	19	17,447
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	9.1	9.1	3.9	8.5	0.01	0.09	2.1	2.2	0.08	0.50	0.59	—	2,808	2,808	0.13	0.25	3.2	2,889

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	5.8	4.5	23	73	0.09	0.51	12	13	0.48	3.0	3.5	—	21,974	21,974	1.2	1.8	60	22,595
2027	320	320	21	69	0.09	0.47	12	13	0.44	3.0	3.5	—	21,593	21,593	0.85	1.7	54	22,179
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	10.0	7.5	80	106	0.27	2.3	45	47	2.1	9.9	12	—	39,824	39,824	3.0	4.3	3.1	40,935
2027	320	320	22	56	0.09	0.47	12	13	0.44	3.0	3.5	—	20,749	20,749	0.87	1.7	1.4	21,283
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	4.5	3.3	21	47	0.08	0.49	11	12	0.46	2.8	3.2	—	16,958	16,958	0.80	1.5	19	17,447
2027	50	50	7.0	19	0.02	0.16	3.7	3.9	0.15	0.90	1.1	—	6,041	6,041	0.23	0.45	6.6	6,188
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.82	0.61	3.9	8.5	0.01	0.09	2.1	2.2	0.08	0.50	0.59	—	2,808	2,808	0.13	0.25	3.2	2,889
2027	9.1	9.1	1.3	3.4	< 0.005	0.03	0.68	0.71	0.03	0.16	0.19	—	1,000	1,000	0.04	0.07	1.1	1,024

3. Construction Emissions Details

3.1. Demolition (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Roa Equipment	2.7	2.3	21	19	0.03	0.84	—	0.84	0.78	—	0.78	—	3,427	3,427	0.14	0.03	—	3,438
Demolition	—	—	—	—	—	—	28	28	—	4.2	4.2	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	1.1	1.0	< 0.005	0.05	—	0.05	0.04	—	0.04	—	188	188	0.01	< 0.005	—	188
Demolition	—	—	—	—	—	—	1.5	1.5	—	0.23	0.23	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.21	0.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	31	31	< 0.005	< 0.005	—	31
Demolition	—	—	—	—	—	—	0.28	0.28	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.82	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	190	190	< 0.005	0.01	0.02	192
Vendor	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	0.00
Hauling	2.6	0.31	27	15	0.15	0.28	5.9	6.2	0.28	1.6	1.9	—	21,702	21,702	2.2	3.5	1.1	22,793

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11	11	< 0.005	< 0.005	0.02	11
Vendor	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	0.00
Hauling	0.15	0.02	1.5	0.80	0.01	0.02	0.32	0.34	0.02	0.09	0.10	—	1,189	1,189	0.12	0.19	1.0	1,250
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.7	1.7	< 0.005	< 0.005	< 0.005	1.8
Vendor	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	0.00
Hauling	0.03	< 0.005	0.27	0.15	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	197	197	0.02	0.03	0.17	207

3.3. Grading (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.6	3.0	27	28	0.06	1.1	—	1.1	1.0	—	1.0	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	9.2	9.2	—	3.7	3.7	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.30	0.25	2.2	2.3	0.01	0.09	—	0.09	0.08	—	0.08	—	542	542	0.02	< 0.005	—	544
Dust From Material Movement	—	—	—	—	—	—	0.76	0.76	—	0.30	0.30	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	0.41	0.41	< 0.005	0.02	—	0.02	0.02	—	0.02	—	90	90	< 0.005	< 0.005	—	90
Dust From Material Movement	—	—	—	—	—	—	0.14	0.14	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.09	1.1	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	253	253	< 0.005	0.01	0.02	256
Vendor	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	0.00
Hauling	0.55	0.06	5.6	3.1	0.03	0.06	1.2	1.3	0.06	0.34	0.40	—	4,530	4,530	0.45	0.72	0.24	4,758
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	21	21	< 0.005	< 0.005	0.03	21
Vendor	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	0.00
Hauling	0.05	0.01	0.46	0.25	< 0.005	< 0.005	0.10	0.11	< 0.005	0.03	0.03	—	372	372	0.04	0.06	0.33	391
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.5	3.5	< 0.005	< 0.005	0.01	3.5
Vendor	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	0.00
Hauling	0.01	< 0.005	0.08	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	62	62	0.01	0.01	0.05	65

3.5. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.3	1.1	9.9	13	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.3	1.1	9.9	13	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	0.67	6.2	8.1	0.01	0.24	—	0.24	0.22	—	0.22	—	1,506	1,506	0.06	0.01	—	1,511
Onsite truck	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	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	1.1	1.5	< 0.005	0.04	—	0.04	0.04	—	0.04	—	249	249	0.01	< 0.005	—	250
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.6	3.3	3.0	55	0.00	0.00	9.9	9.9	0.00	2.3	2.3	—	10,478	10,478	0.44	0.36	36	10,632
Vendor	0.91	0.19	9.8	5.3	0.07	0.13	2.6	2.7	0.13	0.71	0.84	—	9,099	9,099	0.64	1.4	24	9,557
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.4	3.1	3.3	41	0.00	0.00	9.9	9.9	0.00	2.3	2.3	—	9,609	9,609	0.15	0.38	0.93	9,726
Vendor	0.90	0.17	10	5.4	0.07	0.13	2.6	2.7	0.13	0.71	0.84	—	9,104	9,104	0.64	1.4	0.62	9,539
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	2.2	1.9	2.3	27	0.00	0.00	6.2	6.2	0.00	1.5	1.5	—	6,121	6,121	0.09	0.24	9.7	6,203
Vendor	0.57	0.11	6.5	3.4	0.04	0.08	1.6	1.7	0.08	0.44	0.53	—	5,717	5,717	0.40	0.88	6.5	5,996
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.39	0.35	0.42	5.0	0.00	0.00	1.1	1.1	0.00	0.27	0.27	—	1,013	1,013	0.02	0.04	1.6	1,027
Vendor	0.10	0.02	1.2	0.62	0.01	0.02	0.29	0.31	0.02	0.08	0.10	—	947	947	0.07	0.15	1.1	993
Hauling	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	0.00

3.7. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.2	1.0	9.4	13	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.2	1.0	9.4	13	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31	0.26	2.3	3.2	0.01	0.08	—	0.08	0.08	—	0.08	—	596	596	0.02	< 0.005	—	598
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.43	0.59	< 0.005	0.02	—	0.02	0.01	—	0.01	—	99	99	< 0.005	< 0.005	—	99
Onsite truck	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	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.5	3.1	2.7	51	0.00	0.00	9.9	9.9	0.00	2.3	2.3	—	10,267	10,267	0.12	0.36	32	10,410
Vendor	0.83	0.19	9.4	5.1	0.07	0.13	2.6	2.7	0.13	0.71	0.84	—	8,929	8,929	0.64	1.3	21	9,364
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.3	2.9	3.0	38	0.00	0.00	9.9	9.9	0.00	2.3	2.3	—	9,418	9,418	0.13	0.36	0.84	9,529
Vendor	0.82	0.17	9.9	5.2	0.07	0.13	2.6	2.7	0.13	0.71	0.84	—	8,934	8,934	0.64	1.3	0.55	9,349
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.83	0.73	0.82	10.0	0.00	0.00	2.5	2.5	0.00	0.58	0.58	—	2,373	2,373	0.03	0.09	3.5	2,404
Vendor	0.20	0.04	2.4	1.3	0.02	0.03	0.64	0.67	0.03	0.18	0.21	—	2,220	2,220	0.16	0.33	2.3	2,325
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.13	0.15	1.8	0.00	0.00	0.45	0.45	0.00	0.11	0.11	—	393	393	0.01	0.01	0.57	398
Vendor	0.04	0.01	0.45	0.23	< 0.005	0.01	0.12	0.12	0.01	0.03	0.04	—	368	368	0.03	0.05	0.38	385
Hauling	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	0.00

3.9. Concrete Imports (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	3.4	3.1	3.3	41	0.00	0.00	9.9	9.9	0.00	2.3	2.3	—	9,609	9,609	0.15	0.38	0.93	9,726
Vendor	0.90	0.17	10	5.4	0.07	0.13	2.6	2.7	0.13	0.71	0.84	—	9,104	9,104	0.64	1.4	0.62	9,539
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.24	0.21	0.25	3.0	0.00	0.00	0.68	0.68	0.00	0.16	0.16	—	667	667	0.01	0.03	1.1	676
Vendor	0.06	0.01	0.71	0.37	< 0.005	0.01	0.18	0.18	0.01	0.05	0.06	—	623	623	0.04	0.10	0.71	654
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.05	0.54	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	110	110	< 0.005	< 0.005	0.18	112
Vendor	0.01	< 0.005	0.13	0.07	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	103	103	0.01	0.02	0.12	108
Hauling	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	0.00

3.11. Paving (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	0.74	6.9	10.0	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	2.1	2.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	1.0	1.5	< 0.005	0.04	—	0.04	0.04	—	0.04	—	228	228	0.01	< 0.005	—	228
Paving	0.32	0.32	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.19	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	38	38	< 0.005	< 0.005	—	38
Paving	0.06	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	1.0	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	203	203	< 0.005	0.01	0.64	206
Vendor	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	0.00
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	28	28	< 0.005	< 0.005	0.04	29
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.7	4.7	< 0.005	< 0.005	0.01	4.8
Vendor	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	0.00
Hauling	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	0.00

3.13. Architectural Coating (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.1	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134

Architectural	318	318	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.1	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	318	318	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.13	0.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	20	20	< 0.005	< 0.005	—	20
Architectural Coatings	48	48	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.3	3.3	< 0.005	< 0.005	—	3.3
Architectural Coatings	8.8	8.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.4	1.3	1.1	20	0.00	0.00	4.0	4.0	0.00	0.93	0.93	—	4,107	4,107	0.05	0.14	13	4,164
Vendor	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	0.00
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.3	1.2	1.2	15	0.00	0.00	4.0	4.0	0.00	0.93	0.93	—	3,767	3,767	0.05	0.14	0.33	3,812
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.18	0.20	2.4	0.00	0.00	0.60	0.60	0.00	0.14	0.14	—	576	576	0.01	0.02	0.84	583
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.04	0.44	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	95	95	< 0.005	< 0.005	0.14	97
Vendor	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	0.00
Hauling	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	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetati	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/5/2026	1/30/2026	5.0	20	—
Grading	Grading	1/5/2026	2/13/2026	5.0	30	—
Building Construction	Building Construction	2/14/2026	5/7/2027	5.0	320	—
Concrete Imports	Building Construction	2/14/2026	3/20/2026	5.0	25	—
Paving	Paving	5/8/2027	7/23/2027	5.0	55	—
Architectural Coating	Architectural Coating	7/24/2027	10/8/2027	5.0	55	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Average	2.0	8.0	367	0.40
Demolition	Excavators	Diesel	Average	3.0	8.0	36	0.38
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.0	33	0.73
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.0	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.0	8.0	84	0.37
Grading	Graders	Diesel	Average	1.00	8.0	148	0.41
Grading	Excavators	Diesel	Average	2.0	8.0	36	0.38
Grading	Scrapers	Diesel	Average	2.0	8.0	423	0.48

Building Construction	Tractors/Loaders/Back	Diesel	Average	3.0	7.0	84	0.37
Building Construction	Forklifts	Diesel	Average	3.0	8.0	82	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.0	14	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.0	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.0	46	0.45
Paving	Pavers	Diesel	Average	2.0	8.0	81	0.42
Paving	Paving Equipment	Diesel	Average	2.0	8.0	89	0.36
Paving	Rollers	Diesel	Average	2.0	8.0	36	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.0	37	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	Worker	15	19	LDA,LDT1,LDT2
Demolition	Vendor	—	10	HHDT,MHDT
Demolition	Hauling	320	20	HHDT
Demolition	Onsite truck	—	—	HHDT
Grading	Worker	20	19	LDA,LDT1,LDT2
Grading	Vendor	—	10	HHDT,MHDT
Grading	Hauling	67	20	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	Worker	759	19	LDA,LDT1,LDT2
Building Construction	Vendor	300	10	HHDT,MHDT
Building Construction	Hauling	0.00	20	HHDT
Building Construction	Onsite truck	—	—	HHDT
Concrete Imports	Worker	759	19	LDA,LDT1,LDT2
Concrete Imports	Vendor	300	10	HHDT,MHDT

Concrete Imports	Hauling	0.00	20	HHDT
Concrete Imports	Onsite truck	—	—	HHDT
Paving	Worker	15	19	LDA,LDT1,LDT2
Paving	Vendor	—	10	HHDT,MHDT
Paving	Hauling	0.00	20	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	Worker	304	19	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10	HHDT,MHDT
Architectural Coating	Hauling	0.00	20	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	2,745,384	915,128	114,998

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Ton of Debris)	Material Exported (Ton of Debris)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	555,664	0.00
Grading	—	10,000	90	0.00	0.00
Paving	0.00	0.00	0.00	0.00	44

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Phase Name	Land Use	Area Paved (acres)	% Asphalt
Paving	Unrefrigerated Warehouse-No Rail	0.00	0%
Paving	Refrigerated Warehouse-No Rail	0.00	0%
Paving	General Office Building	0.00	0%
Paving	Parking Lot	44	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	532	0.03	< 0.005
2027	0.00	532	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	19	annual days of extreme heat
Extreme Precipitation	5.3	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A

Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	95
AQ-PM	94
AQ-DPM	63
Drinking Water	74
Lead Risk Housing	37
Pesticides	0.00
Toxic Releases	84
Traffic	87
Effect Indicators	—
CleanUp Sites	71
Groundwater	0.00
Haz Waste Facilities/Generators	95
Impaired Water Bodies	0.00
Solid Waste	94
Sensitive Population	—
Asthma	9.3
Cardio-vascular	14
Low Birth Weights	32
Socioeconomic Factor Indicators	—
Education	85
Housing	80
Linguistic	59
Poverty	70
Unemployment	44

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	—
Employed	—
Median HI	—
Education	—
Bachelor's or higher	—
High school enrollment	—
Preschool enrollment	—
Transportation	—
Auto Access	—
Active commuting	—
Social	—
2-parent households	—
Voting	—
Neighborhood	—
Alcohol availability	—
Park access	—
Retail density	—
Supermarket access	—
Tree canopy	—
Housing	—
Homeownership	—
Housing habitability	—
Low-inc homeowner severe housing cost burden	—
Low-inc renter severe housing cost burden	—

Uncrowded housing	—
Health Outcomes	—
Insured adults	—
Arthritis	95.7
Asthma ER Admissions	94.5
High Blood Pressure	91.4
Cancer (excluding skin)	98.2
Asthma	30.0
Coronary Heart Disease	90.3
Chronic Obstructive Pulmonary Disease	53.7
Diagnosed Diabetes	79.4
Life Expectancy at Birth	0.0
Cognitively Disabled	26.7
Physically Disabled	95.7
Heart Attack ER Admissions	97.1
Mental Health Not Good	21.2
Chronic Kidney Disease	90.3
Obesity	21.5
Pedestrian Injuries	0.0
Physical Health Not Good	40.7
Stroke	80.6
Health Risk Behaviors	—
Binge Drinking	1.4
Current Smoker	4.4
No Leisure Time for Physical Activity	39.4
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0

Children	91.6
Elderly	99.1
English Speaking	0.0
Foreign-born	0.0
Outdoor Workers	39.1
Climate Change Adaptive Capacity	—
Impervious Surface Cover	76.0
Traffic Density	0.0
Traffic Access	62.4
Other Indices	—
Hardship	0.0
Other Decision Support	—
2016 Voting	0.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	66
Healthy Places Index Score for Project Location (b)	—
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

8.1. Justifications

Screen	Justification
Characteristics: Utility Information	Consistent with DEIR.
Land Use	See comment on: "Failure to Include Parking Land Use".
Construction: Construction Phases	Consistent with DEIR.
Construction: Off-Road Equipment	Consistent with DEIR.
Construction: Trips and VMT	1,000 total truck trips for material export during grading consistent with the DEIR.

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

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

(949) 887-9013
mhagemann@swape.com

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

- **Geologic and Hydrogeologic Characterization, Investigation and Remediation Strategies**
- **Industrial Stormwater Compliance**
- **CEQA Review**
- **Expert Testimony**

Professional Certifications:
California Professional Geologist, P.G.
California Certified Hydrogeologist, C.Hg.

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 Experience:
30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. Spent nine years with the U.S. EPA in the Resource Conservation Recovery Act (RCRA) and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where I identified emerging threats to groundwater. While with EPA, I served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. 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, I developed extensive client relationships and has managed complex projects that include consultations as an expert witness and a regulatory specialist, and managing projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality and greenhouse gas emissions.

Positions held include:

Government:
Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);

Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
Geologist, U.S. Forest Service (1986 – 1998).

Educational:
Geology Instructor, Golden West College, 2010 – 2104, 2017;
Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
Instructor, College of Marin, Department of Science (1990 – 1995).

Private Sector:
Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);
Executive Director, Orange Coast Watch (2001 – 2004);
Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, responsibilities have included:

- Lead analyst and testifying expert, for both plaintiffs and defendants, 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.
- Recommending 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 exposure to hazards from toxins.
- Stormwater analysis, sampling and best management practice evaluation, for both government agencies and corporate clients, at more than 150 industrial facilities.
- Serving as expert witness for both plaintiffs and defendants in cases including contamination of groundwater, CERCLAcompliance in assessment and remediation, and industrial stormwater contamination.
- Technical assistance and litigation support for vapor intrusion concerns, for both government agencies and corporate clients.
- Lead analyst and testifying expert in the review of environmental issues in license applicationsfor 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., 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.
- Lead author for a multi-volume remedial investigation report for an operating school in LosAngeles that met strict Sate of California regulatory requirements.
- Development of strategic approaches for cleanup of contaminated sites in consultation withclients and regulators.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, 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 included:

- Leading efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiating a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identifying 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, developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. 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, 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 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. Prepared geologic reports, conducted 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.

Served as a hydrogeologist with the RCRA Hazardous Waste program. Duties included:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliancewith 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, directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following:

- 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 Mexicoand 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 as senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advising the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinkingwater supplies.
- Shaping EPA's national response to these threats by serving on workgroups and by contributingto guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improving the technical training of EPA's scientific and engineering staff.
- Earning 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.
- Establishing national protocol for the peer review of scientific documents.

Geology:

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

- Mapping geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinating research with community stakeholders who were concerned with natural resource protection.
- Characterizing the geology of an aquifer that serves as the sole source of drinking water for thecity of Medford, Oregon.

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

Duties included the following:

- Supervising year-long effort for soil and groundwater sampling.
- Conducting aquifer tests.
- Investigating active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, 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.
- Part time geology instructor at Golden West College in Huntington Beach, California from 2010 to 2014 and in 2017.

Summary of Testimony Experience Over Past Four Years

In Re New Jersey Department of Environmental Protection et al. vs. E.I. DuPont de Nemours and Company, in the United States District Court, District of New Jersey, Civil Action No. 1:19-cv-14766-RMB-JBC. Deposition in 2025. Representing Plaintiffs in matters regarding contamination of groundwater, wastewater, soil, and air with per- and poly-fluoroalkyl substances.

In Re Edmond Asher, et al., vs. RTX Corporation (f/k/a Raytheon Technologies Corporation, et al.) in the County of Huntington Superior Court, Indiana, Cause number 35D01-2006-CT-000338. Deposition in 2024. Representing Plaintiffs in matters regarding contamination of groundwater and soil vapor with trichlorethylene.

In Re Wright vs Consolidated Rail Corporation In the Circuit Court of Cook County, Illinois, Case No: 21L3966. Deposition in 2023, Representing Plaintiff in matters involving groundwater and drinking water contamination of perchloroethylene, trichlorethylene, 1,2-dichloroethane, and carbon tetrachloride.

In Re Behr Dayton Thermal Products LLC In the United States District Court for the Southern District of Ohio Western Division at Dayton, Case No: 08-cv-326. Deposition in 2022. Representing Plaintiff in matters regarding contamination of groundwater and indoor air with perchloroethylene and trichloethelene.

Orange County Water District vs. Sabic Innovative Plastics US, LLC, et al. In the Court of Appeal, Fourth District,

Division 1, California, Case No: D070553. Deposition in 2020. Representing Plaintiff in matters involving compliance with The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).
Los Angeles Waterkeeper vs. AAA Plating and Inspection, Inc. In the United States District Court for the Central District of California, Case No: No. CV 18-5916 PA (GJSx). Deposition in 2019. Expert witness representing Plaintiff in matters involving contaminated stormwater runoff at an industrial facility in Compton, California.

Californians for Alternatives to Toxics vs. Schneider Dock and Intermodal Facility. In the United States District Court for the Northern District of California, Case No: 3:17-cv-05287-JST. Deposition in 2019. Expert witness representing Plaintiff in matters involving contaminated stormwater runoff at an industrial facility in Eureka, California.

Bells et al. vs. The 3M Company et al. In the United States District Court for the District of Colorado, Case No: 1:16-CV-02531-RBJ. Deposition in 2018. Expert witness representing Plaintiff on matters regarding the general hydrogeological conditions present in an area impacted by per- and poly-fluoroalkyl substances.

Ungar vs. Foundation for Affordable Housing. In the Superior Court, State of California, Los Angeles County, Case No. BC628890 Deposition in 2017. Expert witness representing defendant on matters involving alleged drinking water contamination.

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 andPublic 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 atschools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBEReleases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells.

Presentation to the Ground Water and Environmental Law Conference, National GroundwaterAssociation.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Waterin 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 Waterin 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 atribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to ameeting of tribal representatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking WaterSupplies. 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 ofthe National Groundwater Association.

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

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to AddressImpacts 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 andState Underground Storage Tank Program managers.

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

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 StorageTanks.

Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water 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 WatercraftUsage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George WrightSociety 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 AirStation, 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, Airand Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Basesin 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

SOIL WATER AIR PROTECTION ENTERPRISE
2656 29th Street, Suite 201
Santa Monica, California 90405
Attn: Paul Rosenfeld, Ph.D.
Mobil: (310) 795-2335
Office: (310) 452-5555
Fax: (310) 452-5550
Email: prosenfeld@swape.com

Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

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

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

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

Professional Experience

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

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

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_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.R., McCarthy, S.J. *et al.* Camp Lejeune Marine Cancer Risk Assessment for Exposure to Contaminated Drinking Water From 1955 to 1987. *Water Air Soil Pollut* **235**, 124 (2024). https://doi.org/10.1007/s11270-023-06863-y.

Rosenfeld P.E., Spaeth K.R., Remy L.L., Byers V., Muerth S.A., Hallman R,C., Summers-Evans J., Barker S. (2023) Perfluoroalkyl substances exposure in firefighters: Sources and implications, *Environmental Research*, Volume 220, https://doi.org/10.1016/j.envres.2022.115164.

Rosenfeld P.E. and Spaeth K.R., (2023) Authors' Response to Letter to the Editor from Bullock and Ramacciotti, *Water Air Soil Pollution* Volume 234, https://doi.org/10.1007/s11270-023-06165-3

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.

Cheremisinoff, N.P., **Rosenfeld, P.E.** Davletshin, A.R. (2008). ***Responsible Care***. Gulf Publishing. Texas.

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 affects 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. Master's 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. Bachelor's 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 at University of Massachusetts, Amherst MA.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. The 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 the 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 the 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 the 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 District Court of Harris County Texas
Mt Davis Interest, Inc v Sesco Cement Corp
Cause No 2023-26512
Trial 6-6-2-25

In the United States Southern District of New York
Gallo vs Avon Products Inc., et al
Civil Action No.: 1:23-cv-2023
Deposition 4-24-2025

In Vanderburgh Superior Court 5, County of Vanderburgh, Indiana
Markello v CSX
Civil Action No 82D05-2011-CT-004962
Deposition 3-26-25

Iin the Circuit Court of Cook County Illinois
Jarosiewicz v Northeast Regional Railroad
Case No 2023 L 002290
Deposition 2-27-25

In the District Court 191st Judicial District Dallas County
Acklin v Poly America International
Cause No DC-22-08610
Deposition 1-8-2025

United States District Court, Norther District of California
Asustin Vs Monsanto
Case No 2:23-cv-272
Deposition 12-20-25

In Jefferson Circuit Court Division One, Louisville, Kentucky
Stafford vs, CSX
Case No. 18-CI-001790

Deposition: 8-27-24

In the Twenty-Second Judicial Circuit of St. Louis. State of Missouri
Patricia Godfrey vs, Amtrak
Case No. 2122-CC-00525
Deposition: 7-17-24

In the Circuit Court of Jefferson County Alabama
Linda Early Vs. CSX
Case number CV-2021-00241
Deposition 6-24-24

In the Court of Common Please Lucas County, Ohio
Brenda Conkright vs. CSX
Case No. G-4801-CI-0202102664-000
Deposition: 6-4-24

In the Commonwealth of Kentucky, Greenup Circuit Court
Patsy Sue Napier vs. CSX
Case No. 19-CI-0012
Deposition: 5-8-2-24

In United States District Court of Hawaii
Patrick Feindt, Jr. et al. vs. The United States of America
Case No. 1:22-cv-LEK-KJM
Trial 3-29-24 and 4-5-24

In the District Court of Hood County State of Texas
Artie Gray vs. Exxon Mobil
Case No. C-2018047
Rosenfeld Deposition:4-22-2024

In the Elkhart Superior Court State of Indiana
Estate of Clark Stacy vs. Penn Central Corporation
Cause No 2D01-2001-CT-00007
Rosenfeld Deposition 1-25-2024 and 3-7-2024

In the Circuit Court of Trempealeau County, State of Wisconsin
Michael J. Sylla et al. vs. High-Crush Whitehall LLC
Case No. 2019-CV-63, 2019-CV-64, 2019-CV-65, 2019-CV-66
Rosenfeld Deposition: 3-5-2024

In the Circuit Court of Trempealeau County, State of Wisconsin
Leland Drangstveit vs. High-Crush Blair LLC
Case No. 19-CV-66
Rosenfeld Deposition 3-5-2024

In the Circuit Court of Jefferson County Alabama
Donald Lee Ashworth vs. CSX Transportation Inc.
Case No CV-2021-901261
Rosenfeld Deposition 1-23-2024

In the United States District Court for the Eastern District of Wisconsin
Gary L Siepe vs. Soo Line Railroad
Case No. 2:21-cv-00919
Rosenfeld Deposition 1-19-2024

In the United States District Court for the Western District of Louisiana
Ricky Bush v. Clean Harbors Colfax LLC
Case No. 1:22-cv-02026-DDD-JPM
Rosenfeld Deposition 12-18-2023 and 1-15-2024

In United States District Court of Hawaii
Patrick Feindt, Jr. et al. vs. The United States of America
Case No. 1:22-cv-LEK-KJM
Rosenfeld Deposition 11-29-2023

In the Circuit Court for the Twentieth Judicial Circuit St. Clair County, Illinois
Timothy Gray vs. Rural King et al.
Case No 2022-LA-355
Rosenfeld Deposition 9-26-2023

In United States District Court Eastern District of Wisconsin
Gary L. Siepe vs. Soo Line Railroad Company
Case No. 2:21-cv-00919
Rosenfeld Deposition 9-15-2023

In the Circuit Court of Cook County Illinois
Donald Fox vs. BNSF
Case No. 2021 L12
Rosenfeld Deposition 9-12-2023

In the Court of Common Please Cuyahoga County, Ohio
Thomas Schleich vs. Penn Central Corporation
Lead Case No. CV-20-939184
Rosenfeld Deposition 8-27-2023

In the Circuit Court of Jackson County Missouri at Kansas City
Timothy Dalsing vs. BNSF
Case No. No. 2216-cv06539
Rosenfeld Deposition 7-28-2023

In the United States District Court for the Southern District of Texas Houston Division
International Terminals Company LLC Deer Park Fire Litigation
Lead Case No. 4:19-cv-01460
Rosenfeld Deposition 7-25-2023

In the Circuit Court of Livingston County Missouri
Shirley Ralls vs. Canadian Pacific Railway and Soo Lind Railroad
Case No. 28LV-CV0020
Rosenfeld Daubert Hearing 7-18-2023 Trial Testimony 7-19-2023

In the Circuit Court of Cook County Illinois
Brenda Wright vs. Penn Central and Conrail
Case No. No. 2032L003966
Rosenfeld Deposition 6-13-2023

In the Circuit Court Common Please Philadelphia of Jefferson County Alabama
Frank Belle vs. Birmingham Southern Railroad Company et al.
Case No. 01-cv-2021-900901.00
Rosenfeld Deposition 4-6-2023

In the Circuit Court of Jefferson County Alabama
Linda De Gregorio vs. Penn Central
Case No. 002278
Rosenfeld Deposition 3-27-20203

In the United States District Court Eastern District of New York
Rosalie Romano et al. vs. Northrup Grumman Corporation
Case No. 16-cv-5760
Rosenfeld Deposition 3-16-2023

In the Superior Court of Washington, Spokane County
Judy Cundy vs. BNSF
Case No. 21-2-03718-32
Rosenfeld Deposition 3-9-2023

In The Court of Common Pleas of Philadelphia County, PA Civil Trial Division
Feaster v Conrail
Case No. 001075
Rosenfeld Deposition 2-1-2023

In United States District Court for the Central District of Illinois
Sherman vs. BNSF
Case No. 3:17-cv-01192
Rosenfeld Deposition 1-18-2023

In United States District Court District of Colorado
Gonzales vs. BNSF
Case No. 1:21-cv-01690
Rosenfeld Deposition 1-17-2023

In United States District Court District of Colorado
Abeyta vs. BNSF
Case No. 1:21-cv-01689-KMT
Rosenfeld Deposition 1-3-2023

In United States District Court For The Easter District of Louisiana
Nathaniel Smith vs. Illinois Central Railroad
Case No. 2:21-cv-01235
Rosenfeld Deposition 11-30-2022

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, Trial 1-10-2023

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. vs 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., Plaintifs, 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. vs. 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 United States District Court Western District of Oklahoma
Tommy McCarty, et al., Plaintiffs, vs. 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 County of Kern, Unlimited Jurisdiction
Rose Propagation Services vs. Heppe Enterprises
Case No. S-1500-CV-278190, LHB
Rosenfeld Deposition: May 2014

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

In the Court of Galveston County, Texas 56th Judicial District
MDL Litigation Regarding Texas City Refinery Ultracracker Emission Event Litigation
Cause No. 10-UC-0001
Rosenfeld Deposition: March 2013
Rosenfeld Trial: September 2013

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 United States District court of Southern District of California
United States of America, Plaintiff vs. 2,560 Acres of Land, more or less, located in Imperial County, State of California; and Donald L. Crawford, et. al.
Civil No. 3:11-cv-02258-IEG-RBB
Rosenfeld Deposition: December 2012, January 2013

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 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 for the Middle District of Alabama, Northern Division
James K. Benefield, et al., Plaintiffs, vs. International Paper Company, Defendant.

California Department of Transportation

DISTRICT 8
464 WEST 4TH STREET
SAN BERNARDINO CA, 92401
(909) 925-7520
www.dot.ca.gov

November 17, 2025

Route & Postmile #: 08-SBd-015 PM 4.417
Cross Street: N/A
GTS ID: 38162
SCH #: 2024090833

City of Rancho Cucamonga
Principal Planner
Attn: Sean McPherson
1056600 Civic Center Drive
Rancho Cucamonga, CA 91730

Subject: Draft EIR, TIS – Arrow Commerce Center, City of Rancho Cucamonga

The California Department of Transportation (Caltrans) Local Development Review (LDR) Branch has completed its evaluation of the Draft EIR, Traffic Impact Study, dated September 2024, prepared for the City of Rancho Cucamonga by Fehrs and Peers.

Caltrans is committed to supporting a multimodal transportation system that serves local development projects. Planning for facilities that accommodate pedestrians, cyclists, transit riders, and car/vanpool users encourages more multimodal travel. This, in turn, helps reduce traffic congestion, vehicle miles traveled (VMT), greenhouse gas emissions, and the State's contribution to climate change. 5-1

The proposed project involves demolition and clearing of existing paved surfaces, followed by site grading, excavation, and construction of five two-story buildings totaling approximately 1,830,729 gross square feet of warehouse, distribution, and associated office uses. The project also includes the development and operation of loading docks for truck trailers, 968 passenger vehicle parking spaces, 444 truck trailer parking spaces, six new public streets, water quality basins, utility infrastructure improvements, and exterior lighting and signage.

Development of the site would result in approximately 44 acres of paved or other impervious surfaces and would provide landscaping on approximately 10 percent of the project site.

Based on the information provided in the Draft EIR and its associated documents, we are submitting the following comments and recommendations for your consideration:

Vehicle Miles Traveled (VMT) and Greenhouse Gas (GHG) Reduction

1. Project proponents are encouraged to coordinate with nearby planned bike networks to contribute to a larger active transportation network. The City shall consider establishing a VMT Mitigation Impact Fee program to help mitigate potential impacts on the State Highway System.
2. Future developments must also consider the traffic safety impacts on the State Highway System resulting from new pedestrian and bicyclist needs, particularly where new origins or destinations intersect a State Route. Additionally, the analysis should address multimodal conflict points and changes in traffic composition, such as an increase in bicyclists or pedestrians, especially in areas where features like shoulders or sidewalks may not exist or are inconsistent with the facility's design.
3. Caltrans recommends that the project implement multimodal strategies, such as those derived from Transit-Oriented Development (TOD), to further reduce the traffic-related impacts of future projects.
4. Active Transportation Plans and Smart Growth initiatives play a key role in supporting the state's 2050 Climate goals. Caltrans supports efforts to reduce Vehicle Miles Traveled (VMT) and Greenhouse Gas (GHG) emissions by promoting strategies that encourage greater use of, and benefits from, a multimodal transportation network.

5-2

Safety Reviews:

5. The proposed project will generate additional trips on the State Highway System. Please provide a Safety Analysis Report for the intersection of I-15 and Foothill Blvd. The Safety Analysis Report shall follow the attached guidance. See attached ***Local Development Review (LDR) Safety Review Practitioners Guidance in February 2024.*** Please follow the steps below:
    a) Please analyze the existing crash data and discuss the project's impact on safety as needed.
    b) To request crash data on the State Highway System, please submit your request via our California Public Records Act (CPRA) portal at mycusthelp.com.
    c) Please provide appropriate countermeasures to mitigate/ reduce project's safety impact if applicable.

5-3

Traffic Operations

6. Please include all traffic impacts from nearby pending projects that may affect your development in the complete TIS. Consult with the lead agency for the status and information on these projects.
7. Please also include the interchanges I-10/Milliken Ave in the Project study Area.
8. Please include queueing analysis for all State Highway study interchanges.
9. Please provide the Annual Average Daily Traffic (AADT) data for the study interchanges along the State Highway System.
10. Please provide recommended improvements at the interchange of I-15/ Foothill Rd for Future Year (2050).

5-4

Equitable Access

If any Caltrans facilities are impacted by the project, they must comply with American Disabilities Act (ADA) Standards upon project completion. Additionally, the project must ensure the maintenance of bicycle and pedestrian access throughout the construction phase. These access considerations align with Caltrans' equity mission to provide a safe, sustainable, and equitable transportation network for all users.

5-5

Caltrans Encroachment Permit
Please be advised that any permanent work or temporary traffic control that encroaches onto Caltrans' Right-of-Way (ROW) requires a requires a Caltrans-issued encroachment permit.

For information regarding the Encroachment Permit application and submittal requirements, contact:

5-6

Caltrans Office of Encroachment Permits
464 West 4th Street, Basement, MS 619
San Bernardino, CA 92401-1400
(909) 383-4526
D8.E-permits@dot.ca.gov
https://dot.ca.gov/programs/traffic-operations/ep

Please be advised that LDR's point of contact role will conclude upon the completion of the development entitlement process. Once project is entitled, the Encroachment Permit Office will serve as the primary point of contact moving forward.

5-7

Thank you again for including Caltrans in the review process. Should you have any questions regarding this letter, or for future notifications and requests for review of new projects, please email LDR-D8@dot.ca.gov or call 909-925-7520.

Sincerely,

Janki Patel

Janki Patel
Branch Chief - Local Development Review
Division of Transportation Planning
Caltrans District 8