September 2022 | Final Environmental Impact Report
State Clearinghouse No. 2019080299

BREA MALL MIXED USE PROJECT

for the City of Brea

Volume III – Response to Comments

Prepared for:

City of Brea
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PLACEWORKS

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1. Introduction

1.1 INTRODUCTION

This Final Environmental Impact Report (FEIR) has been prepared in accordance with the California Environmental Quality Act (CEQA) as amended (Public Resources Code §§ 21000 et seq.) and CEQA Guidelines (California Code of Regulations §§ 15000 et seq.).

According to the CEQA Guidelines, Section 15132, the FEIR shall consist of:

(a) The Draft Environmental Impact Report (DEIR) or a revision of the Draft;

(b) Comments and recommendations received on the DEIR either verbatim or in summary;

(c) A list of persons, organizations, and public agencies comments on the DEIR;

(d) The responses of the Lead Agency to significant environmental points raised in the review and consultation process; and

(e) Any other information added by the Lead Agency.

This document contains responses to comments received on the DEIR for the Brea Mall Mixed Use Project during the public review period, which began January 16, 2020, and closed March 2, 2020. This document has been prepared in accordance with CEQA and the CEQA Guidelines and represents the independent judgment of the Lead Agency. Volume I, *FEIR*, Volume II, *Appendices*, and Volume III, *Response to Comments*, comprise the FEIR in accordance with CEQA Guidelines, Section 15132.

1.2 FORMAT OF THE FEIR

This document is organized as follows:

Section 1, Introduction. This section describes CEQA requirements and content of this FEIR.

Section 2, Response to Comments. This section provides a list of agencies and interested persons commenting on the DEIR; copies of comment letters received during the public review period, and individual responses to written comments. To facilitate review of the responses, each comment letter has been reproduced and assigned a number (A1 through A2 for letters received from agencies and organizations, and R1 through R6 for letters received from the public). Individual comments have been numbered for each letter and the letter is followed by responses with references to the corresponding comment number.

The responses to comments contain material and revisions that will be added to the text of the FEIR. City of Brea staff has reviewed this material and determined that none of this material constitutes the type of

significant new information that requires recirculation of the DEIR for further public comment under CEQA Guidelines Section 15088.5. None of this new material indicates that the project will result in a significant new environmental impact not previously disclosed in the DEIR. Additionally, none of this material indicates that there would be a substantial increase in the severity of a previously identified environmental impact that will not be mitigated, or that there would be any of the other circumstances requiring recirculation described in Section 15088.5.

1.3 CEQA REQUIREMENTS REGARDING COMMENTS AND RESPONSES

CEQA Guidelines Section 15204 (a) outlines parameters for submitting comments, and reminds persons and public agencies that the focus of review and comment of DEIRs should be "on the sufficiency of the document in identifying and analyzing possible impacts on the environment and ways in which significant effects of the project might be avoided or mitigated. Comments are most helpful when they suggest additional specific alternatives or mitigation measures that would provide better ways to avoid or mitigate the significant environmental effects. At the same time, reviewers should be aware that the adequacy of an EIR is determined in terms of what is reasonably feasible. …CEQA does not require a lead agency to conduct every test or perform all research, study, and experimentation recommended or demanded by commenters. When responding to comments, lead agencies need only respond to significant environmental issues and do not need to provide all information requested by reviewers, as long as a good faith effort at full disclosure is made in the EIR."

CEQA Guidelines Section 15204 (c) further advises, "Reviewers should explain the basis for their comments, and should submit data or references offering facts, reasonable assumptions based on facts, or expert opinion supported by facts in support of the comments. Pursuant to Section 15064, an effect shall not be considered significant in the absence of substantial evidence." Section 15204 (d) also states, "Each responsible agency and trustee agency shall focus its comments on environmental information germane to that agency's statutory responsibility." Section 15204 (e) states, "This section shall not be used to restrict the ability of reviewers to comment on the general adequacy of a document or of the lead agency to reject comments not focused as recommended by this section."

In accordance with CEQA, Public Resources Code Section 21092.5, copies of the written responses to those public agencies submitting comments will be forwarded to those agencies at least 10 days prior to certifying the environmental impact report. The responses will be forwarded with copies of this FEIR, and will conform to the legal standards established for response to comments on DEIRs.

2. Response to Comments

Section 15088 of the CEQA Guidelines requires the Lead Agency (City of Brea) to evaluate comments on environmental issues received from public agencies and interested parties who reviewed the DEIR and prepare written responses.

This section provides all written responses received on the DEIR and the City of Brea's responses to each comment.

Comment letters and specific comments are given letters and numbers for reference purposes. Where sections of the DEIR are excerpted in this document, the sections are shown indented. Changes to the DEIR text are shown in <u>underlined text</u> for additions and ~~strikeout~~ for deletions.

The following is a list of agencies and persons that submitted comments on the DEIR during the public review period.

2. Response to Comments

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LETTER A1 – Agua Caliente Band of Cahuilla Indians, Arysa Gonzalez Romero, Historic Preservation Technician (1 page)

From: Gonzalez Romero, Arysa (TRBL) [mailto:aromero@aguacaliente.net]
Sent: Thursday, January 23, 2020 4:41 PM
To: Magana, Jessica <jessicam@ci.brea.ca.us>
Subject: Brea Mall Mixed Use Project (State Clearinghouse No. 2019080299)

Greetings,

A records check of the Tribal Historic preservation office's cultural registry revealed that this project is not located within the Tribe's Traditional Use Area. Therefore, we defer to the other tribes in the area. This letter shall conclude our consultation efforts. A1-1

Thank you,

Arysa Gonzalez Romero
Historic Preservation Technician
Agua Caliente Band of Cahuilla Indians
5401 Dinah Shore Drive Palm Springs, CA 92264
D: 760-883-1327 | C: 760-831-2484

2. Response to Comments

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A1. Response to Comments from Agua Caliente Band of Cahuilla Indians, Arysa Gonzalez Romero, Historic Preservation Technician, dated January 23, 2020.

A1-1 The Commenter's statement that the project site is not located within the Tribe's Traditional Use Area is noted.

2. Response to Comments

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LETTER A2 – Caltrans, Scott Shelley, Branch Chief, Regional-IGR-Transit Planning (1 of 6 pages)

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY GAVIN NEWSOM., Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 12
1750 EAST FOURTH STREET, SUITE 100
SANTA ANA, CA 92705
PHONE (657) 328-6267
FAX (657) 328-6510
TTY 711
www.dot.ca.gov

Making Conservation a California Way of Life.

March 2, 2020

Ms. Jessica Magana
City of Brea
1 Civic Center Circle
Brea, CA 92821

File: IGR/CEQA
SCH#: 2019080299
DOC:12-ORA-2019-01311

Dear Ms. Magana,

Thank you for including the California Department of Transportation (Caltrans) in the review of the Draft Environmental Impact Report (DEIR) for the proposed Brea Mall Mixed-Use Project. The mission of Caltrans is to provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability. INTRO

The project will redevelop existing portions of Brea Mall which will result in a net increase of 149,625 sq. ft. of commercial space and 312 residential units. The project is located between Randolph Avenue, State College Boulevard, and Imperial Highway. Nearby State facilities include State Routes 57 (SR 57) and SR 90. Caltrans is a responsible agency and has the following comments:

Traffic Operations:

1. Based on the TRAF-1 Mitigation in the DEIR: "Prior to issuance of a building permit, the City and Caltrans shall jointly identify feasible operational and physical improvements and the associated fair-share funding contribution necessary to mitigate project-related direct and indirect impacts to state transportation facilities, including these intersections:
   a. #16 Harbor Boulevard at Imperial Highway,
   b. #18 Brea Boulevard at Imperial Highway,
   c. #19 Randolph Avenue at Imperial Highway,
   d. #20 State College Boulevard at Imperial Highway,
   e. #22 SR-57 NB Ramps at Imperial Highway, and
   f. #23 Associated Road at Imperial Highway"

   Caltrans Traffic Operations have identified the following improvements as possible mitigation measures for project impacts: A2-1

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

2. Response to Comments

LETTER A2 – Caltrans, Scott Shelley, Branch Chief, Regional-IGR-Transit Planning (2 of 6 pages)

IMPERIAL HIGHWAY:

A. Consider adding a data collection station west of the Randolph/Imperial intersection. This station would collect VMT and improve the safety and operation of the intersection.
B. The city's proposed mitigation measure No. 19 Randolph Avenue at Imperial Highway – Caltrans Traffic Operations would prefer to keep the dual left turn lanes. Storage on the southern portion of the intersection is severely limited and would benefit from dual left turn lanes.
C. Ensure that Imperial Highway has 3 through lanes, and 2 signal timing heads, in both eastbound and westbound directions to maintain efficient throughput.
D. Any signals operated by the City on Imperial Highway must be under a maintenance agreement.
E. For improvements on Brea Boulevard and Imperial highway:
    a. Northern leg must not have a right-turn on red. This will streamline and remove possible conflicts to westward travelers on Imperial Highway.
    b. The right turn pocket on the western leg is too short, which may result in queueing on the thru lanes. Consider expanding the right turn pocket.
    c. The lane drop on the southern leg of the intersection may not be sufficient for 3 thru lanes and a right turn. Consider keeping the SB lane consideration as is.

A2-1

CONT'D

SR 57:

F. For improvements on the NB 57 offramp:
    a. Consider shifting the eastward stop bar further back to provide a safer left turn radius for all vehicles.
    b. Consider expanding the NB offramp to 3 left turn lanes and 1 ½ right turn lane.
    c. Consider extending the sidewalk on the left-side of the NB SR 57 onramp, in order to create a shorter pedestrian crossing with better visibility.
    d. Consider installing additional lighting along each intersection.
G. For improvements on the SB 57 offramp, considering expanding the intersection to include 2 left-turn lanes and 2 right-turn lanes.

Possible mitigation for the Project is not limited to the ones listed above. Caltrans is willing to work for the City to explore other avenues of mitigation and to implement the ones mentioned in the DEIR and above.

LETTER A2 – Caltrans, Scott Shelley, Branch Chief, Regional-IGR-Transit Planning (3 of 6 pages)

2. The project will generate significant impacts on the State Highway System and the local arterial system. Proposed mitigation includes changing the alignment and phasing of certain intersections on Imperial Highway. Caltrans Traffic Operations group will need to review the proposed changes to alignment and phasing for signal timing optimization, corridor synchronization, to ensure the safety for all users and improve efficiency of vehicle throughput. A2-2

3. Limit any construction to off-peak hours in order to minimize impacts on Caltrans facilities. A2-3

Transportation Planning:

4. The DEIR states: "However, these improvements are within Caltrans' right-of-way and are subject to Caltrans review and approval. In addition, Caltrans has no mechanism by which projects can contribute fair share fees to offset impacts. Therefore, the mitigation measure was considered but determined to be infeasible." A2-4

   Caltrans will coordinate with the City to development funding and/or cooperative agreement options that would facilitate the development and implementation of suggested and agreed upon mitigation measures, to ensure they are feasible.

5. The DEIR states: "Since the proposed Project cannot guarantee that these improvements which are under the jurisdiction of Caltrans will be implemented, a statement of overriding considerations may be required for this location." A2-5

   Please coordinate with Caltrans to adequately address the impacts associated with the proposed project, by completing the proposed mitigation improvements to comply with CEQA regulations.

6. The Brea Mall contains a transit hub. Consider providing improved notification to future residents and mall visitors of its location through appropriate signage and wayfinding. Additionally, providing easier bicycle and pedestrian access to the transit hub would promote transit usage, reducing vehicle miles traveled, and improve congestion. A2-6

7. Consider incorporating designated areas/parking for freight delivery and micro-transit pick up and drop off in the site plan design for this project. A2-7

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

2. Response to Comments

LETTER A2 – Caltrans, Scott Shelley, Branch Chief, Regional-IGR-Transit Planning (4 of 6 pages)

8. Consider using fair-share funds for improvements in the Brea Park-and-Ride Lot. These could include the installation of electric vehicle charging station. Charging stations would promote the use of clean air vehicles, reducing GHG emissions and air quality impacts of the facility. A2-8

9. Explore the option of using underutilized parking spaces near the transit hub and during off peak hours as park and ride spaces. These would promote transit as a more accessible and feasible mobility option. A2-9

Active Transportation:

10. Consider adding conflict zone striping for Class II bicycle facilities in areas such as driveways and entrances/exits to parking lots and structures. This highlights the movements of bicyclists through these areas, increasing their safety by making them more visible to vehicles. A2-10

11. Consider adding green paint to the on-street bicycle facilities to highlight conflict points between bicycles and vehicles, thus improving bicyclists' safety. A2-11

12. According to the City of Brea's Active Transportation Plan (2019), there are proposed bicycle improvements along State College Boulevard. Consider adding safe and appropriate bicycle connections to State College Boulevard. Improvements may include wayfinding signage, continuation of bicycle facilities, and conflict zone striping. Improvements will also encourage residents to bicycle to destinations, thus reducing the amount of short-duration vehicle trips. A2-12

13. Craig Regional Park is located south of the project site and the Tracks at Brea Trail is location north of the project. Consider adding safe bicycle and pedestrian connections across nearby roadways and intersections. Active Transportation-oriented improvements will encourage residents to walk and bicycle to the park, thus promoting Active Transportation and public health, as well as reducing congestion and improving air quality. A2-13

14. Caltrans District 12 recently completed a project to improve sidewalks and curb ramps along SR 90. Due to the proposed project's proximity to SR 90, consider providing safe and appropriate pedestrian connections to SR 90. Improvements may include pedestrian-oriented lighting and wayfinding signage, and will encourage residents to walk to destinations, therefore reducing the amount of short-duration vehicle trips. A2-14

LETTER A2 – Caltrans, Scott Shelley, Branch Chief, Regional-IGR-Transit Planning (5 of 6 pages)

15. Caltrans supports the project's inclusion of secure and functional short- and long-term bike parking. Short-term bike parking at retail locations should be placed on the ground floor in visible areas that are close to main entrances and should be installed at least 24" away from walls and other objects (e.g. trash cans, plants, etc.). Both short- and long-term bike parking should be designed to accommodate different types of bikes (e.g. cargo bike, bike with trailer). A2-15

16. For additional guidance on providing functional bike parking, see the attached "Essentials of Bike Parking" guidance created by the Association of Pedestrian and Bicycle Professionals (link to online PDF: https://www.apbp.org/Publications). A2-16

Hydraulics:

17. Diversion flow is not allowed and discharging groundwater to storm drains is not allowed. Existing flow pattern shall be maintained. A2-17

18. Final construction plans and hydrology calculations (existing & proposed condition) need to be reviewed and approved by Hydraulics Branch during Encroachment Permitting Process to clarify that there will be no increase in water surface elevation in the existing systems A2-18

NPDES/Stormwater:

19. Prior to connecting to Caltrans drainage systems, the City must receive approval from the NPDES/Stormwater group during the Caltrans Permitting Process. A2-19

Design:

20. All pedestrian facilities within Caltrans ROW (if any) shall be ADA compliant. All roadways within Caltrans ROW shall comply to standards set forth in the Highway Design manual or receive an approved exception. A2-20

Permits:

21. Any project work proposed in the vicinity of the State Right-of-Way (ROW) would require an encroachment permit and all environmental concerns must be adequately addressed. If the environmental documentation for the project does not meet Caltrans's requirements for work done within State ROW, additional documentation would be required before approval of the encroachment permit. Please coordinate with Caltrans to meet requirements for any work within or near State ROW. For specific details for Encroachment Permits procedure, please refer to the Caltrans's A2-21

2. Response to Comments

LETTER A2 – Caltrans, Scott Shelley, Branch Chief, Regional-IGR-Transit Planning (6 of 6 pages)

Encroachment Permits Manual at:
http://www.dot.ca.gov/hq/traffops/developserv/permits/

Please continue to keep us informed of this project and any future developments that could potentially impact State transportation facilities. If you have any questions or need to contact us, please do not hesitate to contact Jude Miranda at (657) 328-6229 or Jude.Miranda@dot.ca.gov.

A2-21
CONT'D

Sincerely,

SCOTT SHELLEY
Branch Chief, Regional-IGR-Transit Planning
District 12

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

A2. Response to Comments from Scott Shelly, Branch Chief, Regional-IGR Transit Planning, California Department of Transportation (Caltrans), District 12, dated March 2, 2020.

Intro Responses to Caltrans comments are provided below. It should be noted that since the EIR was circulated, Senate Bill 743 (SB 743) went into effect. Under the new Guidelines, vehicle miles traveled (VMT)-related metric(s) that evaluate the significance of transportation-related impacts under CEQA for development projects, land use plans, and transportation infrastructure projects are required beginning on July 1, 2020. The legislation does not preclude the application of local general plan policies, zoning codes, conditions of approval, or any other planning requirements that require evaluation of LOS, but these metrics may no longer constitute a basis for determining transportation impacts under CEQA. The City of Brea adopted VMT metrics for CEQA development projects in October 2020. The Final EIR includes changes to Section 5.12, *Transportation*, to reflect the new VMT thresholds adopted by the City (see also FEIR, Volume II, Appendix I2). In addition, a revised Transportation Analysis is provided (see FEIR, Volume II, Appendix I1).

A2-1 The additional improvements to traffic operations within Caltrans' right-of-way (ROW) require approval and coordination with Caltrans. Therefore, for the purposes of CEQA, they are not considered feasible as mitigation measures, and therefore, no mitigation measures are required. Additionally, under SB 743, level of service (LOS) metrics are no longer considered CEQA impacts.

Imperial Highway

A. Caltrans suggested mitigation measure to consider adding a data collection station west of the Randolph/Imperial intersection to collect vehicle miles traveled (VMT) and improve safety and operation of the intersection is noted.

B. Based on the more revised Traffic Circulation Analysis (see Volume II, Appendix I1 of the FEIR), which analyzed the project as revised (see Chapter 3, *Project Description,* I Volume I of the FEIR), the level of service/operating condition of Randolph Avenue at Imperial Highway is no longer considered an environmental impact. Therefore, improvements at the intersection are no longer recommended in the current traffic study and this comment is no longer applicable.

C. Caltrans preference that Imperial Highway be maintained with three through lanes and two signal timing heads in both the eastbound and westbound directions to maintain efficient throughput will be forwarded onto the decision-makers for their review and consideration.

D. Caltrans' request for a maintenance agreement with the City for traffic signals on Imperial Highway operated by the City is noted.

Ea. To provide a conservative assessment, the operation analysis included in the Traffic Circulation Analysis in Appendix I1, Volume II of the FEIR, does not include right reductions for right turn on red at the Brea Boulevard/ Imperial Highway intersection, or other study locations. Therefore, no changes to the Traffic Circulation Analysis are necessary and the findings, conclusions and recommendations for this intersection remain valid.

E.b. Based on the revised Traffic Circulation Analysis (see Volume II, Appendix I1 of the FEIR), which analyzed the project as revised, Brea Boulevard at Imperial Highway is no longer considered an impacted location. Therefore, improvements at the intersection are no longer recommended in the current traffic study and this comment is no longer applicable. However, Caltrans suggestion to expand the westbound right-turn lane on Imperial Highway is noted.

E.c. Based on the revised Traffic Circulation Analysis (see Volume II, Appendix I1 of the FEIR), which analyzed the project as revised, Brea Boulevard at Imperial Highway is no longer considered an impacted location, therefore, improvements at the intersection are no longer recommended in the current traffic study and this comment is no longer applicable. However, Caltrans suggestion to expand the westbound right-turn lane on Imperial Highway is noted.

State Route 57 (SR-57)

F.a. Based on the revised Traffic Circulation Analysis (see Volume II, Appendix I1 of the FEIR), which analyzed the project as revised, SR-57 Northbound Ramp at Imperial Highway is no longer considered an impacted location, therefore, improvements at the intersection are no longer recommended in the current traffic study and this comment is no longer applicable. However, Caltrans' suggestion to consider shifting the eastward stop bar on Imperial Highway further back on SR-57 NB off-ramp as part of the recommended improvements to provide a safer left turn radius for all vehicles is noted.

F.b. Based on the revised Traffic Circulation Analysis (see Volume II, Appendix I1 of the FEIR), which analyzed the project as revised, SR-57 Northbound Ramp at Imperial Highway is no longer considered an impacted location, therefore, improvements at the intersection are no longer recommended in the current traffic study and this comment is no longer applicable. However, Caltrans preference to provide three left-turn lanes, a shared through/right and a right-turn lane as a recommended improvement is acknowledged. Based on the results of an operations sensitivity analysis, acceptable service levels would be achieved. This request is noted.

F.c. Caltrans' suggestion to consider extending the sidewalk on the left-side of the SR-57 on-ramp to create a shorter pedestrian crossing with improved visibility is noted.

F.d. Caltrans' suggestion to consider additional lighting along each intersection at the SR-57/Imperial Highway interchange is noted.

G. Caltrans preference to configure the northbound approach on the SR-57 NB off-ramp to Lambert Road to provide dual left-turn lanes and dual right-turn lanes is acknowledged. This request is noted.

A2-2 See response to Comment A2-1. See Chapter 5.12, *Transportation,* in Volume I of the FEIR, which states that the only significant impact caused by the proposed project is the project driveways' insufficient stacking. Therefore, no change in alignment is required. The need for Caltrans' Traffic Operations group to review changes to the phasing for signal timing optimization and corridor synchronization to improve safety and efficiency is noted. This request is noted.

A2-3 The hours for construction activities are limited to the hours set-forth in the City's Municipal Code (i.e., 7:00 am to 7:00 pm on weekdays and Saturdays). Construction activities would generally take place between 7 AM and 4 PM weekdays. During the initial site preparation (demolition and grading), the project would generate up to 35 construction worker vehicle trips and 55 truck trips. During building construction, there could be up to 324 construction worker trips. The daily trips generated during construction is substantially less than the net increase in trips during operation (3,159 trips). As a condition of approval (see plans, programs, and policies (PPP) TRAF-3) the City is requiring preparation of a parking management plan for construction and operational activities. No additional requests are required to reduce a significant impact.

A2-4 The request to coordinate with Caltrans to develop funding and/or cooperative agreements is noted.

A2-5 See response to Comment A2-2 and A2-3. While the City will continue to coordinate with Caltrans to address operations to Caltrans' facilities, these measures are outside of the jurisdictional control of the City of Brea. Additionally, under the new SB 743 guidance, impacts to level of service (LOS) may no longer constitute a basis for determining transportation impacts under CEQA. Caltrans' request that the City coordinate with Caltrans to address LOS deficiencies identified in Appendix I1 (see Volume II of the FEIR) is acknowledged.

A2-6 The request to relocate the Orange County Transportation Authority's (OCTA) Brea Transit Hub to within the mall property is within the discretion of OCTA and not the City or Simon Property Group (i.e., the mall). The request to provide notification to future residents and mall visitor of the transit hub location with the Brea Mall through appropriate signage and wayfinding, as well as providing easier bicycle and pedestrian access to the transit hub, is noted.

A2-7 The request to incorporate designated areas for freight delivery and micro-transit pick-up and drop-off is noted.

A2-8 The Brea Park-and-Ride lot off of Lambert Road is not part of the proposed project. The proposed project includes electric vehicle (EV) charging in accordance with the California Green Building Standards Code (CALGreen) requirements. The request to utilize fees collected by the City to install additional EV charging stations at the Brea Park-and-Ride lot is noted.

A2-9 As noted by Caltrans, the Brea Mall parking is often underutilized during weekdays, Sunday, and off-peak (i.e., outside the Holiday season). The request for the Simon Property Group to coordinate with OCTA to provide use of the underutilized parking spaces during the off-peak days is noted.

A2-10 The project includes an internal bike lane and multi-modal path/network on the perimeter of Brea Mall to provide linkages to The Tracks at Brea Trails, Brea Downtown, La Floresta, and other neighborhoods in the City. The request to add conflict-zone striping for Class II bicycle facilities in areas such as driveways and entrances/exits to parking lots and structures is noted.

A2-11 See response to Comment A2-8. The request to add "green paint" to the on-street bicycle facilities to highlight conflict points between bicycles and vehicles to improve safety is noted.

A2-12 The City has recently completed their Active Transportation Plan. The project includes a multi-model path/network on the perimeter of Brea Mall that would connect to the future bicycle improvements planned by the City on State College Boulevard.

A2-13 See response to Comments A2-9 through A2-11. The project includes an internal bike lane and multi-modal path/network on the perimeter of Brea Mall to provide linkages to The Tracks at Brea Trails, Brea Downtown, La Floresta, and other neighborhoods in the City. The project's multi-model path/network on the perimeter of Brea Mall would connect to the future bicycle improvements planned by the City.

A2-14 See response to Comments A2-9 through A2-11. The Brea Mall includes pedestrian lighting onsite. Wayfinding and lighting within the City's and/or Caltrans ROW on Imperial Highway is not currently proposed by the project. The request for the City to provide pedestrian-oriented lighting and wayfinding signage as part of the City's planned active transportation improvements to the bicycle network is noted.

A2-15 The proposed project includes both short-and long-term bicycle parking in the residential parking garage, the retail parking garage, and at the redeveloped area of Brea Mall. The short- and long-term bicycle spaces will meet or exceed the CALGreen requirements for

bicycle storage. The request to place the bicycle storage spaces in visible areas that are close to the main entrances is noted.

A2-16 Comment noted.

A2-17 The existing stormwater drainage patterns are being maintained.

A2-18 Final construction plans and hydrology calculations will be provided to Caltrans' Hydraulics Branch during the Encroachment Permitting Process, if required. Additionally, hydrology calculations are available in Appendix L (see Volume II of the FEIR).

A2-19 See response to Comment A2-17. Approval from the National Pollution Discharge Elimination System (NPDES)/Stormwater group is necessary during the Caltrans Permitting Process.

A2-20 The proposed project does not include any transportation improvements within the Caltrans' ROW. However, all pedestrian facilities installed as part of the project will be American Disability Act (ADA) compliant.

A2-21 Caltrans statement that work required within Caltrans ROW requires an encroachment permit is noted. The proposed project does not include any improvements within the Caltrans' ROW.

2. Response to Comments

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LETTER A3 – OCTA, Charlie Larwood, Department Manager (1 of 2 pages)

RECEIVED
MAR – 6 2020
BY: ch

OCTA

AFFILIATED AGENCIES
Orange County Transit District
Local Transportation Authority
Service Authority for Freeway Emergencies
Consolidated Transportation Service Agency
Congestion Management Agency

March 2, 2020

Ms. Jennifer Lilley
City Planner
City of Brea
1 Civic Center Cir
Brea, CA 92821

Subject: **Notice of Availability of a Draft Environmental Impact Report for the Brea Mall Mixed Use Project (State Clearinghouse No. 2019080299)**

Dear Ms. Lilley:

Thank you for providing the Orange County Transportation Authority (OCTA) with the opportunity to comment on the Draft Environmental Impact Report (DEIR) for the Brea Mall Mixed Use Project (State Clearinghouse No. 2019080299). The following comments are provided for your consideration: INTRO

- DEIR Section 5.12.1.1 – "Regulatory Framework" subsection "Orange County Transportation Authority Congestion Management Plan" states, "There are two roadways in the project study area that are on OCTA's CMP Highway System: #1, State College Boulevard at Imperial highway; and #13, SR-57 NB Ramps at Imperial." The identified are not roadways but intersections. Please revise to state "There are two roadways in the project study area that are on OCTA's CMP Highway System: State College Boulevard and Imperial Highway." A3-1

- DEIR Section 5.12-77 – "CMP Analysis" identifies intersection #22 as "SR-N7 SB Ramps at Imperial Highway". Please revise to "SR-57 NB Ramps at Imperial Highway." A3-2

- DEIR pages 5.12-11 through 5.12-13 – The following roadway descriptions are not consistent with the City of Brea's (City) General Plan description:

  - Birch Street is described as a Primary Arterial in the project study area according to the DEIR. The City's Master Plan of Arterial Roadways designates Birch Street as a Secondary Arterial, except between Randolph Avenue and Associated Road, where it is designated as a Primary Arterial. A3-3

Orange County Transportation Authority
550 South Main Street / P.O. Box 14184 / Orange / California 92863-1584 / (714) 560-OCTA (6282)

2. Response to Comments

LETTER A3 – OCTA, Charlie Larwood, Department Manager (2 of 2 pages)

- Brea Boulevard is described as a Primary Arterial in the project study area. The City's Master Plan of Arterial Roadways designates Brea Boulevard as a Primary Arterial north of Imperial Highway, and as a Major Arterial south of Imperial Highway. A3-4

- State College Boulevard is described as a Primary Arterial in the project study area. The City's Master Plan of Arterial Roadways designates State College Boulevard as a Secondary Arterial north of Birch Street, a Primary Arterial between Birch Street and Imperial Highway, and as a Major Arterial south of Imperial Highway. A3-5

- Intersection 9 – State College Boulevard at Birch Street does not reflect the existing geometric southbound lane configuration as depicted in Figure 5.12-2a. A3-6

  Intersection 25 – This intersection is listed as "Castlegate Lane/ Kraemer Boulevard at Imperial Highway" in Figure 5.12-2b, but the intersection is listed as "Kraemer Boulevard at Imperial Highway" in Table 5.12-5. Please note that Castlegate Lane and Kraemer Boulevard do not intersect. Castlegate Lane turns into Placentia Avenue, as identified in Intersection 24 of Table 5.12-5. A3-7

- Please confirm with the California Department of Transportation that the transportation mitigations as identified in the DEIR Table ES-4 are infeasible.

Throughout the development of this plan, we encourage communication with OCTA on any matters discussed herein. If you have any questions or comments, please contact me at (714) 560-5683 or at clarwood@octa.net. A3-8

Sincerely,

Charlie Larwood
Department Manager

A3. Response to Comments from Charlie Larwood, Department Manager, Orange County Transportation Authority (OCTA), dated March 5, 2020.

Intro Responses to the Orange County Transportation Authority's (OCTA) comments are provided below. It should be noted that since the EIR was circulated, Senate Bill 743 (SB 743) went into effect. Under the new Guidelines, vehicle miles traveled (VMT)-related metric(s) that evaluate the significance of transportation-related impacts under CEQA for development projects, land use plans, and transportation infrastructure projects are required beginning on July 1, 2020. The legislation does not preclude the application of local general plan policies, zoning codes, conditions of approval, or any other planning requirements that require evaluation of LOS, but these metrics may no longer constitute a basis for determining transportation impacts under CEQA. The City of Brea adopted VMT metrics for CEQA development projects in October 2020. The Final EIR includes changes to Section 5.12, *Transportation*, to reflect the new VMT thresholds adopted by the City (see also FEIR, Volume II, Appendix I2). In addition, a revised Transportation Analysis is provided (see FEIR, Volume II, Appendix I1).

A3-1 The regulatory framework subsection of Chapter 5.12, *Transportation*, has been updated to include the two roadways on OCTA's Congestion Management Plan (CMP) Highway System, State College Boulevard and Imperial Highway, that are within the project study area. This change has been incorporated into the FEIR (see Volume I).

A3-2 Comment noted. Intersection #16 is SR-57 NB Ramps at Imperial Highway (see Appendix I1 in Volume II of the FEIR).

A3-3 References to Birch Street in Chapter 5.12, *Transportation,* have been updated to identify Birch Street as a Secondary Arterial, except between Randolph Avenue and Associated Road, where is it designated as a Primary Arterial. This change has been incorporated into the FEIR (see Volume I).

A3-4 References to Brea Boulevard in Chapter 5.12, *Transportation*, have been updated to identify that Brea Boulevard is a Major Arterial south of Imperial Highway. This change has been incorporated into the FEIR (see Volume I).

A3-5 References to State College Boulevard in Chapter 5.12, *Transportation,* have been updated to identify State College Boulevard as a Major Arterial, south of Imperial Highway and a Secondary Arterial north of Birch Street. This change has been incorporated into the FEIR (see Volume I).

A3-6 Based on current field observations it is apparent that the southbound movement at State College Boulevard and Birch Street has recently been widened to accommodate an exclusive southbound right turn lane. However, State College Boulevard at Birch Street currently operates and is forecast to continue to operate at acceptable service levels (see Appendix I1 in Volume II of this FEIR). With inclusion of the southbound right-turn

lane in the service level calculations of this study intersection, forecast operating conditions are anticipated to continue to operate at similar levels, if not better service levels. Hence, the findings, conclusions and recommendation of the Draft EIR remain valid; and therefore, no changes to the Draft EIR are recommended.

A3-7 In response to SB 743, a revised Transportation Analysis (see FEIR, Volume II, Appendix I1) was prepared. The comment that the intersection of Kraemer Boulevard at Imperial Highway was incorrectly referenced as Castlegate Lane is acknowledged. However, this intersection is no longer included in the Traffic Circulation Analysis.

A3-8 CEQA Guidelines Section 15364 identifies that a lead agency's authority to impose mitigation measures must be based on legal authority other than CEQA. Page 5.12-113 of the revised Draft EIR (Volume I of the FEIR) identifies several engineering improvements that could be implemented by Caltrans to lessen the safety-related impact of the project. While from an engineering perspective these measures are feasible, under CEQA these measures are identified as not feasible since the responsibility to implement these measures is not within the sole jurisdiction of the City (CEQA Guidelines Section 15091(a)(2)).

In addition, for congestion-related impacts, since circulation of the Draft EIR, SB 743 went into effect. As a result, level of service (LOS) may no longer constitute a basis for determining transportation impacts under CEQA. The City of Brea adopted VMT metrics for CEQA development projects in October 2020. The Final EIR includes changes to Section 5.12, *Transportation*, to reflect the new VMT thresholds adopted by the City (see also FEIR, Volume II, Appendix I2). In addition, a revised Transportation Analysis is provided (see FEIR, Volume II, Appendix I1). As a result, under the new SB 743 guidelines adopted by the City, the proposed project has a less than significant transportation impact under Impact 5.12-1 in the revised Draft EIR (see Volume I of the FEIR).

LETTER R1 – Susan Perlson (1 of 2 pages)

From: bennet/susan perlson [redacted]
Sent: Monday, February 10, 2020 4:54 PM
To: Magana, Jessica <jessicam@ci.brea.ca.us>
Subject: Corrected the font! Brea Mall Mixed-Use Project - public response

Dear Jessica,

Thank you so much for providing the opportunity to respond to the EIR report for the Brea Mall mixed-use project. It is a very informative report.

As I noted previously, the inclusion of residential housing does meet the city's plan for in-fill and mixed-use areas. It is near transit options such as the bus and a major highway and freeway. There is a desperate need for affordable housing that serves lower-income families where parents may work in the service-sector industry such as retail and restaurants. The proposed development offers new restaurants and employment opportunities right next-door. There is a need for the 312 dwelling units included. If not included, I don't see the need for the effort and cost of making any changes to the site at all. There are no details on the rental rates that I could find; nevertheless, I strongly endorse workforce housing which Brea has had success with previously. R1-1

I do find that the residential component is quite small compared to the 5 retail units and proposed sporting goods store. It already seems hard to fill in empty storefronts throughout Brea as well as in the mall. So I question the need for lots of extra retail when some of that space could be used for additional housing. This still would not meet the definition of high density.

I do like the idea of a pool and green space. It will primarily benefit the residents on-site. The questions raised on the need for another fitness center are valid since there are several in Brea as well as the community center. Plus a resort-type does sound high-end so a more expensive option. I don't see any of this as competing with downtown. R1-2

In regards to traffic, I live off N. Brea Blvd., above Central. A number of years ago, there was a large townhome development below Central that one might think would have impacted traffic, but it did not. Rather, the heavy traffic on Brea Blvd consists of people heading north to Diamond Bar and beyond at the end of the day. There have also been additional residential developments on Central across from the cemetery and that has not impacted traffic. The proposed mall development is near a major highway, freeway, and bus stops, thus, allowing for ease in accessing transit options. It does not appear to exist nearby residential neighborhoods so there would likely be a limited impact there. R1-3

2. Response to Comments

LETTER R1 – Susan Perlson (2 of 2 pages)

In conclusion, I support efforts to build the 312 residential units and I support additional for-rent residential housing to be provided as well. This is in line with efforts by the state to build more housing near job centers and transit. The proposed mall development meets both of these criteria and this is a unique and rare opportunity for Brea to continue to make a difference in providing affordable housing that is so desperately needed. It is also better balancing the project's competing needs of retail space and housing. R1-4

Thank you for this opportunity to weigh-in and for keeping me in the loop for this development.

Sincerely,

Susan Perlson

R1. Response to Comments from Susan Perlson, dated February 10, 2020.

R1-1 The Commenter's endorsement of workforce housing in Brea and for the proposed project is noted.

Chapter 7, *Alternatives,* of the DEIR, identifies alternatives to the proposed project that have the potential to reduce the project's significant impact. The Commenter's statement that additional residential uses could be incorporated into the project in place of the retail uses and still fall under the City's Mixed-Use I (MU-I) maximum density for the 73.8-acre Brea Mall site is correct. It should be noted that since circulation of the Draft EIR, the proposed project had been modified in response to the changing retail, commercial, and residential market, and is reflected in the FEIR (see Volume I of the FEIR). The proposed project includes a similar mix of retail and commercial, as well as an increase in the number of residential and recreational uses.

R1-2 The proposed project would provide private and common open space areas for the residential uses. Additionally, as indicated in Chapter 5.11, *Recreation,* the inclusion of the fitness center would provide additional recreational amenities to residents of the proposed project as well as the City, which would offset impacts to other recreational facilities in the City. The proposed project would also include a 0.5-acre central green and 0.3-acre plaza for public use.

R1-3 The project's access to transportation, including transit options is noted.

R1-4 The Commenter's overall support of the proposed project, including its efforts to meet the state's requirement of constructing more housing near employment centers and transit, is noted.

2. Response to Comments

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LETTER R2 – Susan Perlson (1 of 2 pages)

From: [redacted]
To: Magana, Jessica
Subject: Fw: Corrected the font! Brea Mall Mixed-Use Project - public response
Date: Sunday, February 16, 2020 12:12:12 PM

Hi Jessica,

I wanted to add a note to my comments below in regards to climate sustainability. I know new buildings in Brea are built with the idea of maintaining energy efficiency, including solar panels, so I'd like to see the use of all measures to make any new development on this entire site to be built with climate sustainability in mind. R2-1

Thank you,

Susan Perlson

----- Forwarded Message -----
From: bennet/susan perlson [redacted]
To: jessicam@cityofbrea.net <jessicam@cityofbrea.net>
Sent: Monday, February 10, 2020, 04:54:16 PM PST
Subject: Corrected the font! Brea Mall Mixed-Use Project - public response

Dear Jessica,

Thank you so much for providing the opportunity to respond to the EIR report for the Brea Mall mixed-use project. It is a very informative report.

As I noted previously, the inclusion of residential housing does meet the city's plan for in-fill and mixed-use areas. It is near transit options such as the bus and a major highway and freeway. There is a desperate need for affordable housing that serves lower-income families where parents may work in the service-sector industry such as retail and restaurants. The proposed development offers new restaurants and employment opportunities right next-door. There is a need for the 312 dwelling units included. If not included, I don't see the need for the effort and cost of making any changes to the site at all. There are no details on the rental rates that I could find; nevertheless, I strongly endorse workforce housing which Brea has had success with previously.

I do find that the residential component is quite small compared to the 5 retail units and proposed sporting goods store. It already seems hard to fill in empty storefronts throughout Brea as well as in the mall. So I question the need for lots of extra retail when some of that space could be used for additional housing. This still would not meet the definition of high density. R2-2

I do like the idea of a pool and green space. It will primarily benefit the residents on-site. The questions raised on the need for another fitness center are valid since there are several in Brea as well as the community center. Plus a resort-type does sound high-end so a more expensive option. I don't see any of this as competing with downtown.

In regards to traffic, I live off N. Brea Blvd., above Central. A number of years ago, there was a large townhome development below Central that one might think would have impacted traffic, but it did not. Rather, the heavy traffic on Brea Blvd consists of people heading north to Diamond Bar and beyond at the end of the day. There have also been additional residential developments on Central across from the cemetery and that has not impacted traffic. The proposed mall development is near a major highway, freeway, and bus stops, thus, allowing for ease in accessing transit options. It does not appear to exist nearby residential neighborhoods so there would likely be a limited impact there.

2. Response to Comments

LETTER R2 – Susan Perlson (2 of 2 pages)

In conclusion, I support efforts to build the 312 residential units and I support additional for-rent residential housing to be provided as well. This is in line with efforts by the state to build more housing near job centers and transit. The proposed mall development meets both of these criteria and this is a unique and rare opportunity for Brea to continue to make a difference in providing affordable housing that is so desperately needed. It is also better balancing the project's competing needs of retail space and housing.

R2-2
CONT'D

Thank you for this opportunity to weigh-in and for keeping me in the loop for this development.

Sincerely,

Susan Perlson

R2. Response to Comments from Susan Perlson, dated February 16, 2020.

R2-1 The energy efficiency and sustainability measures incorporated into the building design of the proposed project are discussed in Chapter 5.4, *Energy*, of the DEIR. PPP E-1 of Chapter 5.4 indicates that all new buildings are required to achieve the current California Building and Energy Efficiency Standards and California Green Building Standards Code (CALGreen). Additionally, the project objectives/design incorporate other sustainable measures, such as including bicycle racks, and locating the proposed project near transit opportunities, jobs, housing, services, and bike/pedestrian trails.

R2-2 The Commenter's previous comments from their letter dated February 10, 2020, were included in this letter. Please see responses R1-1 through R1-4.

2. Response to Comments

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LETTER R3 – Sheppard Mullin on behalf of Macy's, James E. Pugh (1 of 11 pages)

SheppardMullin

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File Number: 0RRY-286821

March 2, 2020

VIA ELECTRONIC MAIL

Jennifer M. Magaña
Associate Planner
City of Brea – Planning Division
1 Civic Center Circle
Brea, CA 92821
jessicam@cityofbrea.net

Re: Comment Letter on the Draft Environmental Impact Report for the Brea Mall Mixed Use Project (State Clearinghouse No. 2019080299)

Dear Ms. Magaña:

We represent Macy's, Inc. ("Macy's"), which owns property and operates a department store within Brea Mall. We write to communicate Macy's excitement and support of the ongoing efforts to redevelop Brea Mall, including the Brea Mall Mixed Use Project ("Project") proposed by Simon Property Group ("Applicant") at the Sear's Parcel ("Project Site"). Macy's is currently working on its own entitlement application to redevelop its property at Brea Mall ("Macy's Parcel"), which is adjacent to the Project Site, into a mixed-use project. Macy's has shared its preliminary development plans and objectives with the Applicant and the City, and its formal entitlement application is forthcoming. We look forward to working with the City, and collaborating with stakeholders, during the entitlement processes for this Project and the Macy's redevelopment project.

After reviewing the Draft Environmental Impact Report ("Draft EIR") for the Project, we have questions about the proposed design and planning, the environmental analysis, and the potential impacts of the Project on Brea Mall and the surrounding area. Macy's submits these comments to seek clarification from the City and the Applicant, and to make recommendations that would benefit the stakeholders and customers of Brea Mall. Please consider these comments as the City prepares the Final EIR for the Project. R3-1

In addition, we ask the City and the Applicant to recognize that there are private agreements, including but not limited to the 1975 Operating Agreement for Brea Mall, that provide reciprocal rights to its parties. This agreement influences the ability to redevelop and operate at Brea Mall. We also note that there was a 1987 Development Agreement between the City and corporate property owners, which the Draft EIR identifies as expired. While we recognize that California Environmental Quality Act ("CEQA") review for the Project may not directly apply to these type of private agreements, we believe that it is important for the City and

2. Response to Comments

LETTER R3 – Sheppard Mullin on behalf of Macy's, James E. Pugh (2 of 11 pages)

SheppardMullin

the Applicant to be cognizant of the rights and responsibilities contained in applicable private, and public-private, agreements for Brea Mall.

R3-1 CONT'D

I. COMMENTS ON THE DRAFT EIR

Macy's submits the following comments on the environmental analysis contained in the Draft EIR for the Project.

A. Land Use

Section 5.7 of the Draft EIR, which evaluates the Project's land use and planning impacts, contains two significant omissions. First, it fails to acknowledge or discuss the Brea Core Plan, which is a long-range planning document that may ultimately govern Brea Mall and the Project Site. Second, although the Draft EIR acknowledges that the Project will result in a shortage of 1,850 parking spaces at Brea Mall, it fails to fully evaluate and mitigate the potential impacts of this parking deficit, including traffic and safety impacts. The Final EIR should address both of these topics.

1. Brea Core Plan

The EIR does not acknowledge or discuss the proposed Brea Core Plan, which would include Brea Mall, the Macy's Parcel, and the Project Site. Macy's believes the Brea Core Plan may be an important tool for ensuring holistic land use planning and redevelopment of the Brea Core, and in particular, for ensuring cohesive and integrated redevelopment activities at Brea Mall for the mutual benefit of the City, land owners, and the public. Although the City has not yet adopted the Brea Core Plan, it has expended much effort on developing the Plan's vision, policies, and objectives. Accordingly, Macy's encourages the City to evaluate the Project in the context of the Brea Core Plan, as doing so could enhance user experience, create better pedestrian connectivity, and improve utilization of public infrastructure.

R3-2

We understand, based on discussions with the City, that it may downscale efforts to advance the Brea Core Plan. However, based on publicly available materials, the Brea Core Plan is still relevant as a long-range land use plan that could govern Brea Mall and the Project Site. (*See* http://www.planbrea.com/.) Accordingly, at a minimum, the Final EIR should include a discussion of (1) the current status of and future intent for the Brea Core Plan; (2) how Brea Mall and the Project fit into the Plan; and (3) whether the Project is consistent with the goals and visioning for the Plan.

Moreover, in October 2019, as part of the Brea Core Plan, the City released the Draft *Brea Connecting the Core Active Transportation Plan* ("Active Transportation Plan"), and on January 21, 2020 the City Council adopted Resolution No. 2020-004 authorizing the City Manager to adopt the Active Transportation Plan. Figure 3-4 of the Active Transportation Plan identifies Brea Mall as a Major Activity Destination and Employment Center. Accordingly, it includes many goals, policies, and recommended improvements relevant to the Project and Brea Mall. These include street, bike, and pedestrian improvements along Imperial Highway, Randolph Avenue, and Birch Street. A key focus of the Active Transportation Plan is enhancing

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pedestrian and cyclist safety. This is a particularly important issue for the Project because, as discussed below, it will result in a parking deficit of 1850 spaces at Brea Mall, creating the potential for internal circulation and queuing impacts, which may lead to conflicts and safety hazards for pedestrians and cyclists. The Final EIR should discuss the Active Transportation Plan and evaluate whether and how the Project implements its goals, policies, and recommended improvements. In addition, it would be helpful for Macy's, and the public, if the EIR included figures that illustrate where pedestrian, bike, and bus lanes tie into adjacent properties, as such pathways are envisioned by the Project, the Active Transportation Plan, or other known and foreseeable City improvements.

R3-2 CONT'D

2. Parking

According to the Draft EIR, the Applicant seeks a reduction of the standard parking requirements for the Project under the City's Zoning Code. The Applicant's proposal will result in a shortage of 1,766 parking spaces for *all commercial operations* at Brea Mall, not just those proposed as part of the Project. The Applicant's proposal will also result in an additional shortage of 91 parking spaces specific to the Applicant's new residential development. (Draft EIR, pp. 5.7-7 to -8.) After implementation of the Applicant's proposal, the entirety of Brea Mall will fall short of the Zoning Code's parking requirements by a total 1,857 spaces. (Draft EIR, Table 5.7-1.) This parking deficit is potentially significant, will affect all owners at Brea Mall (not just the Applicant), and should be more fully addressed in the Final EIR.

First, the Draft EIR does not fully disclose and analyze the potential environmental impacts of the proposed parking reduction. Without this information, it is impossible to accurately understand how the Project will affect traffic, circulation, and safety at Brea Mall and in the surrounding area. For example, it is unclear whether the parking reduction may lead to unmet demand and competition for parking spaces; whether it may cause residents and customers to circle the parking areas while waiting for parking spaces to open; whether it may cause corresponding internal circulation and queuing impacts; whether such internal impacts may spill out onto the surrounding road network; and whether it would increase the risk of conflicts between drivers, pedestrians, and cyclists, thereby jeopardizing the safety of Brea Mall. The City should fully address the potential parking impacts in the Final EIR.[1] In particular, the City should provide an accurate assessment of the Project's parking needs; it should disclose and analyze the potential environmental impacts of the Applicant's parking proposal, including impacts on traffic and safety; and, finally, it should impose appropriate mitigation measures to reduce any impacts to a less than significant level. At a minimum, the mitigation measures should require the Applicant to prepare a parking plan, with input and approval from all Brea Mall owners, that meets Project demand and avoids creating parking shortages that will adversely affect ongoing operations at Brea Mall. Macy's believes there can be a mutually agreeable solution to parking demand at Brea Mall, and it look forwards to working with the Applicant the other owners to develop and implement that solution.

R3-3

[1] Although the Draft EIR references a future parking study and the possibility that the City "may impose additional conditions" to address parking impacts, this approach is inadequate under CEQA, as it amounts to deferred mitigation without performance standards.

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SheppardMullin

Second, the Draft EIR acknowledges that the Project's parking deficit will be especially problematic during holiday shopping periods. Accordingly, plans, programs and policies ("PPP") LU-1 requires "the Brea Mall" to prepare a future parking management plan to address holiday traffic and parking impacts. (Draft EIR, p. 5.7-4.) While this is a sensible idea, the City may not use the Project to impose this requirement on all owners at Brea Mall, as they are not seeking development approvals at this time. The Final EIR should clarify that the Applicant shall be responsible for preparing the parking management plan for its Project, and the City should impose conditions of approval requiring the Applicant to seek input and approval of the parking management plan from the other Brea Mall owners. Additionally, PPP LU-1 fails to include specific performance standards for the parking management plan that will be sufficient to mitigate the Project's holiday parking impacts. To comply with CEQA, the Final EIR should include these performance standards. R3-3 CONT'D

Third, the Applicant's parking proposal will adversely affect not only the Applicant's property but the entirety of Brea Mall. Based on the Draft EIR and Project materials, it appears that the Applicant proposes to spread the new parking deficit across all Brea Mall parcels, thereby requiring the other owners to share the burdens and impacts of the parking shortage created by the Project. This will adversely affect the other owners and their operations, and it may result in a loss of developable land and monetary value. It is unfair to force the other owners to bear these impacts of the Project, particularly since they were not consulted about parking as part of this entitlement process. Macy's proposes that the City require the Applicant to meet with all Brea Mall owners to develop a realistic parking plan that meets the needs of the Project and ensures adequate parking for ongoing mall operations. R3-4

B. Noise

Section 5.8 of the Draft EIR analyzes noise impacts on surrounding land uses. Macy's owns and leases land adjacent to the Project Site and the limits of disturbance identified in Figure ES-5 – Conceptual Site Plan. Macy's is concerned about the potential noise and vibration impacts on its buildings and ongoing retail operations. There are several points in the Draft EIR that warrant further analysis.

First, the Public Safety Chapter of the City of Brea General Plan includes Goal PS-3, which is to minimize noise impacts from sources other than transportation. Relatedly, Policy PS3.1 requires the inclusion of noise mitigation measures in the construction of redevelopment projects. And, Policy PS-3.3 states, in part, that noise emanating from construction activities must be minimized. R3-5

The Draft EIR does not identify Macy's as a noise sensitive use. We understand that commercial operations are not typically defined as noise sensitive. Still, the Macy's Parcel will be subject to construction noise and construction activities that will disrupt the existing setting around Macy's. Accordingly, we request that the City identify noise mitigation measures, or project design features, that can minimize potential noise impacts on Macy's operations and its customers in accordance with the General Plan goals and policies above.

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SheppardMullin

Second, we recognize that Section 8.20.070 of the Municipal Code exempts noise associated with construction activities so long as such activities are performed during certain weekday and weekend hours. However, the Draft EIR set a construction noise threshold of significance (Draft EIR, Section 5.8.2.1) that adopts the FTA criterion of 80 dBA Leq. This calls into question whether the Project would in fact have construction noise impacts pursuant to the FTA threshold, or other thresholds found in the Municipal Code, that seem to apply. R3-6

Furthermore, Section 8.20.090 of the Municipal Code applies to churches. The Draft EIR identifies the Grace Covenant Community Church as a sensitive use near the Project Site. For this type of use, the Municipal Code states the it is unlawful for any person to create any noise which causes the noise level at any church, while the same is in use, to exceed the noise limits as specified in Section 8.20.050. The noise limits specified in Section 8.20.050 of the Municipal Code appear to require a baseline measurement and then a determination of how many decibels above that baseline the noise source creates. Thus, the Final EIR should consider complying with this approach to determine if the Project has significant noise impacts on the church, or, in the alternative, explain clearly why the method utilized in the Draft EIR is preferred. R3-7

In summary, the City should consider these points in order to properly inform the decision makers and disclose impacts associated with the Project. To the extent feasible, the Project should include additional noise mitigation or project design features that ensure neither construction nor operational noise and vibration sources would impact Macy's.

C. Public Services

Section 5.10 of the Draft EIR analyzes the Project's potential impacts on public services. The analysis shows that the Project will increase demand for fire and police services, schools, parks, and libraries. However, in most cases the Draft EIR fails to quantify how much demand the Project will generate, and in all cases it fails to explain how the Project's additional demand will be met. The Final EIR should provide this missing information, and in particular, clarify whether the City will need to construct additional facilities to serve the Project. This is a particularly important issue given the level of cumulative development planned at Brea Mall and within the surrounding Brea Core. R3-8

1. School Facilities

The Draft EIR acknowledges that existing school facilities will not be adequate to serve the Project. In particular, the Project's anticipated student generation will exceed the capacity of the local elementary school by 66 students. (Draft EIR, p. 5.10-14, Table 5.10-3.) The Draft EIR, however, does not explain how these excess students will be accommodated, and whether the City will need to construct additional school facilities to serve the Project. The Final EIR should provide this missing information and analysis. If additional school facilities are needed, the EIR should also explain whether these facilities are planned, whether they will be

2. Response to Comments

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adequately funded by development impact fees and other revenues, and whether they will themselves cause additional environmental impacts. R3-8 CONT'D

2. Fire Services

The Draft EIR acknowledges that the Project will increase demand for fire services, but it fails to quantify this demand or to evaluate related environmental impacts. (Draft EIR, pp. 5.10-4 to -5.) The Final EIR should quantify the Project's demand for additional fire services, and more clearly explain whether the City will need to construct additional fire facilities to serve the Project. If so, the EIR should explain whether these facilities are planned, whether they will be adequately funded by development impact fees and other revenues, and whether they will themselves cause additional environmental impacts. This is a critical issue for Brea Mall and the surrounding community, which need assurances that they will continue to receive adequate fire protection. R3-9

3. Police Services

Similarly, the Draft EIR acknowledges that the Project will increase demand for police services, but it fails to quantify this demand or to evaluate related environmental impacts. (Draft EIR, pp. 5.10-10 to -11.) As with fire services, the Final EIR should quantify the Project's demand for additional police services, and more clearly explain whether the City will need to construct additional police facilities to serve the Project. If so, the EIR should explain whether these facilities are planned, whether they will be adequately funded by development impact fees and other revenues, and whether they will themselves cause additional environmental impacts. This is also a critical issue for Brea Mall and the surrounding community, which need assurances that they will continue to receive adequate police protection. R3-10

D. Transportation

Section 5.12 of the Draft EIR analyzes the transportation impacts of the Project. The analysis is based primarily on the Traffic Analysis Report prepared by Linscott, Law and Greenspan ("Traffic Report"). The impact analysis discloses that the Project would produce 34,957 weekday trips and 43,214 weekend trips, which is a substantial increase compared to existing conditions. These new trips would be distributed onto the local and regional streets in the City and affect facilities in the Cities of La Habra, Fullerton, and Placentia. Caltrans facilities would also be affected. Yet, the Draft EIR does not clearly identify how the impacts of the Project can be mitigated pursuant to CEQA requirements. Macy's is concerned that the Project could overwhelm transportation facilities while not committing to mitigation that offsets impacts. Therefore, we provide the comments below to flesh out the EIR's impact analysis so the public and decision makers are properly informed. R3-11

To start with, the Traffic Report has employed a methodology that calculates the existing baseline condition at the Brea Mall as if Sears was fully occupied. Sears is not occupied now, and nor was it at the time when the City published the Initial Study/Notice of Preparation for the Project. Thus, the number of trips produced by the Project (compared to actual baseline conditions) could be understated. We suggest that the City supplement the traffic analysis by

LETTER R3 – Sheppard Mullin on behalf of Macy's, James E. Pugh (7 of 11 pages)

SheppardMullin

modeling the potential traffic impacts of the Project using the current (i.e., vacant Sears) baseline conditions. R3-11 CONT'D

We recognize that the City has the discretion to set a baseline. Lead agencies have discretion to decide how the existing physical conditions without the project can most realistically be measured as long as that decision is supported by substantial evidence. Here, the most realistic measure of the Project impacts would be to assume Sears is vacant. The reason being that it is unlikely that Sears would be reoccupied either by Sears or another retail tenant given the current planning scenario. And, it is unclear whether such reoccupation could occur without new discretionary permits issued by the City. Therefore, the City should consider supplementing the Draft EIR's analysis with a reality-based baseline. Doing so could identify additional impacts and mitigation requirements that are necessary for informed decision making. R3-12

Next, we see that the Draft EIR contains PPP measures that are supposed to apply to traffic impacts. PPP TRAF-1 and PPP TRAF-3 address development impact fees for transportation improvements and a parking management plan, respectively. However, these PPPs, even when combined with the traffic mitigation measures presented in the Draft EIR appear inadequate to mitigate the significant traffic impacts of the Project. For example, PPP TRAF-1 requires the Project to pay its fair-share fees to offset or mitigate the impacts caused by the Project. And, the Draft EIR concludes (page 5.12-103) that these fair share fees would serve to offset or mitigate traffic impacts.

The Draft EIR is missing the analytical bridge that shows how the fees paid by the Project will in fact mitigate traffic impacts. This is important to Macy's because it appears that the Draft EIR identifies several traffic impacts, but has essentially punted the mitigation requirements. That is problematic because: (a) Macy's forthcoming development project could be unduly affected by "unmitigated" conditions on the surrounding traffic and transit facilities; and (b) Macy's customers could experience more unmitigated congestion while trying to access its stores. We believe that the Final EIR should explain how the fair-share contributions interplay with foreseeable cumulative development at Brea Mall. As is, it is difficult for Macy's to understand whether the Project has truly mitigated its fair-share of impacts on traffic and transit facilities; or whether the approach taken in the Draft EIR instead would shift mitigation burdens to the next stakeholder who launches a project at Brea Mall. Thus, we suggest that the City consider refining the PPPs, in conjunction with the mitigation measure discussed below, to ensure adequate mitigation for the traffic impacts created by the Project and the cumulative scenario. R3-13

In addition, we note that Table 5.12-18, regarding Caltrans freeway analysis, claims that the Project does not generate 50 to 100 peak hour trips assigned to a state highway facility. Accordingly, the Draft EIR indicates that no additional analysis is warranted based on these screening criteria. The analysis is terse. It seems odd that the Project (with between 30,000 to 40,000 daily trips) would not exceed the screening criteria. Thus, we would appreciate the City explaining this issue more clearly so Macy's can understand whether the Project (or its own redevelopment project) is truly exempted from full freeway segment analysis. R3-14

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Also, the Draft EIR presents a very short analysis of pedestrian, bicycle, and transit impacts. (See Draft EIR, p. 5.12-84.) The analysis is basically two hollow statements that "bus service is provided in the area" and therefore "[t]he proposed project would not conflict with policies, plans or programs regarding transit, bicycle or pedestrian facilities." The analysis references Figure 5.12-3, which is the Orange County Transportation Authority ("OCTA") routes within the Brea Mall site. That figure shows several stops and routes by the Macy's parcels. Macy's is interested in how the Project could impact those OCTA facilities and whether improvements are planned for such facilities. Therefore, we request that the City supplement its analysis of transit facilities, particularly the six transit stops identified on the eastern portion of Figure 5.12-3, to explain how the Project would impact (adversely or beneficially) such facilities. R3-15

Lastly, the Draft EIR contains questionable mitigation for traffic impacts. A fundamental purpose of an EIR is to identify ways in which a proposed project's significant environmental impacts can be mitigated or avoided. The Draft EIR must describe feasible mitigation measures that can minimize the project's significant environmental effects. Here, the Draft EIR identifies numerous intersections that would be significantly impacted. Then, it claims any mitigation is infeasible, based mostly on the premise that the impacted facilities belong to Caltrans. This basis for an infeasibility findings may be legally adequate. We suggest, however, that the EIR go further in proving that the recommendations in the Traffic Report are truly infeasible. Similarly, we ask the City to ensure that if the Project has impacts on facilities that can be mitigated – especially if those facilities would also be effected by Macy's redevelopment – then the EIR should include adequate mitigation for the Project and foreseeable cumulative conditions.

As a related issue, the Draft EIR identifies mitigation measure TRAF-1 as a way to potentially mitigate significant traffic impacts. However, TRAF-1 appears to be impermissible deferred mitigation. It is ordinarily inappropriate to defer formulation of a mitigation measure to the future, which is what TRAF-1 does. It states that prior to the issuance of a building permit, the City and Caltrans shall jointly identify feasible operational and physical improvements and the associated fair-share funding contribution necessary to mitigate project-related direct and indirect impacts. This measure does not contain performance standards. The City should instead commit itself to devising a measure that will satisfy specific performance criteria either now or at the time of project approval. That would allow Macy's, the public, and the decision makers to understand how the incremental traffic impacts of the Project will actually be mitigated. This point is of particular concern to Macy's because it has a forthcoming redevelopment project that that City is aware of. Therefore, it is important for the EIR to demonstrate how the City will impose, and the Project will satisfy, mitigation requirements for impacted traffic facilities. R3-16

E. Cumulative Impacts

The Draft EIR does not include the proposed redevelopment of the Macy's Parcel as a future related project in the cumulative impact analysis. An EIR's analysis of cumulative impacts should consider all sources of related impacts. The definition of cumulative impacts in Section 15355 of the CEQA Guidelines is an incremental impact of a project added to other past, present, and future projects. We recognize that, in this case, Macy's has not filed its R3-17

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planning application with the City yet. However, the City has been aware of Macy's' plans to redevelop the Macy's Parcel, for some time. We understand that awareness alone may not sufficient to demonstrate that a project should be considered a probable future project. But, in this instance, it would be advisable to analyze the impacts of the Project holistically by taking into consideration future related projects to redevelop Brea Mall.

For example, case law indicates that a lead agency should analyze cumulative impacts when two similar, large-scale retail projects share arterial roadways and infrastructure. It is the concept of doing holistic planning, within the bounds of CEQA review, when there is apparent redevelopment on large contiguous parcels. The Brea Core Plan started this effort, but has not matured to the point where the City and stakeholders can implement it. Nonetheless, here, the redevelopment of Brea Mall will occur around the Project. The new land uses developed at Brea Mall will share roadways, utility infrastructure, sidewalks, and public services with the Project. Therefore, it would be advisable that the scope of the cumulative impact analysis include foreseeable redevelopment on the Macy's Parcel, and potentially future redevelopment generally at Brea Mall.

R3-17 CONT'D

F. Alternatives

1. Brea Core Plan as an Alternative

As discussed above, the Draft EIR does not address the current status of the Brea Core Plan, how Brea Mall fits into the Brea Core Plan, or whether the Project is consistent with the goals and visioning for the Brea Core Plan. The Draft EIR also does not include a Brea Core Plan-compliant alternative to analyze whether the Project is consistent with the land use designations proposed at Brea Mall.

A key purpose of the process for review and comment on a Draft EIR is to identify ways a project's significant effects might be reduced or avoided. As a result, the CEQA Guidelines explicitly recognize that comments on an EIR are particularly helpful if they suggest "additional specific alternatives or mitigation measures that would provide better ways to avoid or mitigate the significant environmental effects." (CEQA Guidelines, § 15204(a).) As such, Macy's requests that the City consider analyzing a Brea Core Plan-compliant alternative to the Project.

R3-18

Since 2017, the City has been working with stakeholders and the public to develop the Brea Core Plan, a long-range planning document that will guide redevelopment of the core of the City, including the Project Site and Brea Mall. The Brea Core Plan will modify the zoning and land uses at Brea Mall into a Mixed Use Hub to diversify the existing uses beyond retail to permit market-rate housing in either standalone or mixed-use configurations. Similar to the Project, the Brea Core Plan anticipates redevelopment of Brea Mall. While a draft of the entire Brea Core Plan has not been released, the City is making steady progress and adopted Resolution No. 2020-004 on January 21, 2020 authorizing the City Manager to adopt the Active Transportation Plan.

Since the City is contemplating a long-term plan for the Project Site and surrounding area, the City should consider including an alternative that analyzes the Project within the

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redevelopment context (and Mixed-Use Hub designations) proposed for Brea Mall in the Brea Core Plan. Case law indicates that EIRs may include alternatives that increase project density or intensity. A discussion of such alternatives helps to highlight long-range planning policy trade-offs that may arise in consideration of a project and alternatives to it. This type of analysis would be especially helpful in this case becuase the Project as proposed is not consistent with the City's existing zoning and land use designation at the Project Site, but it may be consistent, with the Brea Core Plan, which anticipates mixed-use developments throughout the entire Brea Mall. As written, the Draft EIR does not contain a clear blueprint or analysis of how the Project fits into the long-term planning and visioning goals of the City for the redevelopment of the Mixed-Use Hub. Neither does the Draft EIR inform the decision makers regarding how the Project could induce comprehensive redevelopment of Brea Mall.

R3-18 CONT'D

2. Adequate Discussion of Alternatives

The alternatives discussion in Section 7, of the Draft EIR, does not provide enough information to inform the public or the decision makers. Section 15126.6(d) of the CEQA Guidelines requires an EIR to include sufficient information about each alternative to allow meaningful evaluation, analysis and comparison with the proposed project. An EIR must discuss the significant adverse environmental effects of each alternative though it may be discussed in less detail than is required for a project's effects. (CEQA Guidelines, § 15126.6(d).) An EIR's analysis of alternatives, however, must be specific enough to allow informed decision making and public participation. (Here, the alternatives discussion provides very limited detail. It may not contain the enough information for a sufficient evaluation and comparison with the Project, as required. Thus, we ask the City to consider whether supplementing the alternatives analysis in the Final EIR is warranted.

R3-19

II. COMMENTS ON SITE PLAN AND DESIGN

Macy's also submits the following comments on the Project's site plan and design. We respectfully request that the Applicant consider these comments if it refines its plans as the entitlement process continues. We also ask that the City consider our comments while reviewing the Project, imposing mitigation measures, and developing conditions of approval.

First, we ask the City to consider pedestrian circulation and connectivity between the Project, Brea Mall, and the planned redevelopment at the Macy's Parcel. As the City knows, Macy's is considering its own mixed-use project at the Macy's Parcel. While the exact scope of the project is still being finalized, the project will likely bring hundreds of additional residents to Brea Mall. Macy's expresses this point because it supports holistic and smart land use planning that will guide redevelopment of Brea Mall for the mutual benefit of the City, land owners, and the public. As proposed, the Project permits limited pedestrian connectivity on the exterior of the Project Site as most of the pedestrian-friendly features (e.g., patio zone, central green and plaza, car-free zones, etc.) are accessible only from the interior of the Project Site and there are very few points of entry for pedestrians. For example, the proposed area between the existing Macy's and the proposed sporting goods store and retail parking deck appears largely designed for automobiles and provides limited permeability for pedestrians accessing the Project Site from the Macy's Parcel.

R3-20

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Second, we ask the City to consider how the Project interacts with the Brea Core Plan's intended redevelopment of Brea Mall. Specifically, the Project should assess how to ensure connectivity with the Brea Mall Transit Center ("Transit Center") in the northeastern section of Brea Mall, adjacent to the Macy's Parcel. According to the Active Transportation Plan, the Transit Center is a key bus transit/transfer location in North Orange County. The Active Transportation Plan also recognizes that "[c]onnections to transit and key activity centers are dependent on the pedestrian network and impact on a person's decision utilize public transportation." The Brea Core Plan anticipates integration between the Transit Center to encourage transit use to and from the community, as well as creating a walkable block pattern that allows for street-oriented development. Therefore, we request the City to consider how the Project should integrate with the Brea Mall to create better pedestrian connectivity. R3-21

III. CONCLUSION

Thank you for considering these comments and making appropriate revisions and clarifications to the EIR and Project design. We look forward to continuing our collaboration with the City and the Applicant to successfully redevelop Brea Mall.

James E. Pugh
for SHEPPARD, MULLIN, RICHTER & HAMPTON LLP

SMRH:4826-4154-3094.4

2. Response to Comments

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R3. Response to Comments from Sheppard Mullin on behalf of Macy's, James E. Pugh, dated March 2, 2020.

R3-1 Macy's Inc. (Macy's) support for the proposed project is noted. Responses to Comments are provided in R3-2 through R3-21, below.

It should be noted that Macy's has not formally submitted a development application for Macy's parcel within the Brea Mall site. Preliminary plans shared with the City are considered to be part of the initial vision planning effort and are not considered reasonably foreseeable development until either a formal development application is submitted to the City, or if no application has verified sufficient detail is known about a future application to support meaningful analysis. The lead agency's mere awareness of a potential future project is insufficient to demonstrate that the project is a probable future project. As such, the EIR for the Brea Mall Mixed-Use Project should not engage in speculation on the future development contemplated by Macy's.

The City recognizes the rights and responsibilities of the private agreements for Brea Mall, such as the 1975 Operating Agreement for the Brea Mall. The Draft EIR included references to these agreements, where applicable (e.g., 1987 Development Agreement).

R3-2 See response to Comment R3-3 regarding parking deficiencies. The following describes the current status of the Brea Core Plan planning efforts in the City. A discussion of the Brea Core Plan visioning effort has been incorporated into Section 5.7, *Land Use and Planning*, of the FEIR (see Volume I).

The Brea Core Plan is a collaborative visioning effort the City initiated with the community for an area surrounding the Brea Downtown. As identified in the Brea Core Plan Fact Sheet, the Brea Core Plan is in the gathering and visioning stage and has not yet progressed to the stage where changes to land use designations and zoning regulations are being considered by the City. As stated above, the lead agency's mere awareness of a potential future project is insufficient to demonstrate that the project is a probable future project. Therefore, the EIR for the Brea Mall Mixed-Use Project should not engage in speculation on the future development contemplated by Brea Core Plan.

The City of Brea has adopted an Active Transportation Plan (ATP). The project includes a multi-model path/network on the perimeter of Brea Mall that would connect to the future bicycle improvements planned by the City on State College Boulevard to improve safety. A discussion of the ATP visioning effort has been incorporated into Section 5.12, *Transportation*, of the FEIR (see Volume I).

R3-3 CEQA does not require an evaluation of parking impacts because the inconvenience resulting from a parking shortage is a social impact, not an environmental impact. The EIR included an evaluation of parking based on a consistency analysis with the City's Zoning requirements in Section 5.7, *Land Use and Planning*. As stated on pages 5.7-7

through 5.5-11, the City of Brea will review the parking study and may impose additional conditions to ensure that the proposed parking demand of the project is satisfied. Review by the City would ensure that the project would provide adequate parking and would not result in a physical impact on the environment. It should be noted that the majority of time (weekdays and Sundays) parking lots at the mall are underutilized. Parking is typically only in short supply during the holidays. For these reasons, the City of Brea is requiring Simon Property Group to prepare and submit a parking management plan for holiday traffic as conditions of approval for the project. This requirement is identified as programs, and policies (PPP) PPF TRAF-3. Because this condition does not mitigate a CEQA-related impact, performance standards embedded as part of the PPP are not warranted. However, the City will review the strategies identified in the holiday parking management plan.

R3-4 See response to Comment R3-3. As described in Section 3.5.1.5, *Parking,* in Chapter 3, *Project Description,* of the FEIR (see Volume I), a total of 6,135 parking spaces would be provided under the proposed project. However, parking impacts of the project are not impacts of the project on the environment and therefore, are not CEQA impacts of the project. Mall parking is inherently shared-parking with all tenants/owners at the mall. The parking requirements for the existing 73.8-acre mall site are currently dictated by the prior Development Agreement. Simon Property Group is requesting a revision to the parking standards identified in the prior Development Agreement, which requires a new parking study and review of the study by the City as described in response to Comment R3-3. Furthermore, as indicated above, parking is typically only in short supply during the holidays and PPP TRAF-3 would ensure that the Simon Property Group consider additional parking strategies to address holiday traffic and parking needs.

R3-5 It is our understanding that Simon Property Group plans to coordinate with Macy's and other mall tenants during construction activity to address construction noise and vibration concerns of mall property owners and tenants. As the Commenter states, "commercial operations are not typically defined as noise sensitive." The City of Brea Municipal Code Chapter 8.20, *Noise Control*, sets exterior noise standards for residential properties. The Municipal Code does not define commercial properties as noise or vibration sensitive.

R3-6 See also response to Comment R3-5. The project would comply with the City's allowable hours of construction; therefore, exempting construction noise from the aforementioned exterior noise standards at residential properties. The Federal Transit Administration (FTA) residential criterion of 80 dBA Leq was used in the Draft EIR to assess construction impacts at nearby sensitive receptors. It should be noted that the FTA has no discretionary authority over this project and the criterion of 80 dBA Leq was conservatively adopted for the Draft EIR analysis at noise-sensitive uses (as defined by the Municipal Code).

R3-7 Potential construction and operational noise impacts to the Grace Covenant Community Church were addressed and shown to be less than significant the Draft EIR. Project operational noise from stationary sources such as mechanical equipment was shown to be below the Municipal Code exterior noise standards in Section 8.20.050.

See response to Comments R3-5 and R3-6. The best management practices implemented by construction contractors are sufficient to reduce noise levels during the project's construction phase. Macy's is not considered a noise-sensitive land use and does not have outdoor noise-sensitive areas that would be affected by project-related construction noise. Additional noise mitigation measures or project design features are not needed to reduce project-related noise impacts at noise sensitive land uses proximate to the project site. Although there are no CEQA-related noise impacts, Simon Property Group plans to coordinate with Macy's and other Mall tenants during construction activity to address construction noise and vibration concerns of mall property owners and tenants.

R3-8 Fire services are discussed in response to Comment R3-9 and police services are discussed in response to Comment R3-10. The following responds to comments regarding school services:

Page 5.10-17 of the revised Draft EIR (see Volume I of this FEIR) identifies that the proposed project includes 380 residential units. The proposed project is anticipated to generate approximately 260 students. Construction of new school(s) is not necessarily triggered by the additional demand created by the proposed project. School districts in Orange County are facing declining enrollment trends.[1] School districts plan for student growth based on the existing capacity of school facilities within their district boundaries, planned capacity of school facilities, and enrollment boundaries of the existing schools. As such, it would be speculative to identify the strategy needed by the Brea Olinda Unified School District to accommodate planned growth and analyze the environmental impacts of new school construction as it is not a reasonably foreseeable consequence of the project. Furthermore, pursuant to California Government Code Section 65995(h), payment of the impact fees ($4.79/square foot for residential uses and $0.758/square foot for retail/services as of March 2022) fully mitigates impacts to school facilities. The proposed project would pay development fees and be required to offset the costs associated with increasing school capacity pursuant to Assembly Bill 2926 and Senate Bill 50, respectively (see PPP PS-7 and PPP PS-8).

R3-9 The Brea Fire Department measures demand for fire service based on response time. The Brea Fire Department was consulted on the effect of the project on the Department's facilities and its ability to provide fire services. As described in the Draft EIR, the project would increase the number of fire and emergency services calls. However, based on review

1 California Department of Finance. 2020, January. California Public K-12 Graded Enrollment and High School Graduate Projections by County — 2019 Series. Orange County . http://www.dof.ca.gov/Forecasting/Demographics/Projections/Public_K-12_Graded_Enrollment/

of the project by the Brea Fire Department, with the implementation of PPP PS-1 through PPP PS-4, the project would not affect the Brea Fire Department's ability to provide adequate service and would not require new or expanded fire facilities that could result in adverse environmental impacts.

R3-10 The Brea Police Department measures demand for police service based on response time. The Brea Police Department was consulted on the effect of the project on the Department's facilities and its ability to provide police services. As described in the Draft EIR, the project would increase the number of fire and emergency services calls. However, based on review of the project by the Brea Police Department, with the implementation of PPP PS-5 and PPP PS-6, the project would not affect the Brea Police Department's ability to provide adequate service and would not require new or expanded police facilities that could result in adverse environmental impacts.

R3-11 Since the Draft EIR was circulated, Senate Bill 743 (SB 743) went into effect. Under the new Guidelines, vehicle miles traveled (VMT)-related metric(s) that evaluate the significance of transportation-related impacts under CEQA for development projects, land use plans, and transportation infrastructure projects are required beginning on July 1, 2020. The legislation does not preclude the application of local general plan policies, zoning codes, conditions of approval, or any other planning requirements that require evaluation of LOS, but these metrics may no longer constitute a basis for determining transportation impacts under CEQA. The City of Brea adopted VMT metrics for CEQA development projects in October 2020. The Final EIR includes changes to Section 5.12, *Transportation*, to reflect the new VMT thresholds adopted by the City (see also FEIR, Volume II, Appendix I2). In addition, a revised Transportation Analysis is provided (see FEIR, Volume II, Appendix I1).

Page 5.12-30 through 5.12-31 of the EIR (see Volume I of the FEIR) describe the CEQA baseline used to identify transportation impacts of the project. While the environmental setting normally constitutes the baseline physical conditions by which a lead agency determines whether an impact is significant (CEQA Guidelines Section 15125(a)), the *North County Advocates v. City of Carlsbad (2015) 241 Cal.App. 4th* 94 decision includes that agencies have discretion to consider conditions over a range of time periods to account for a temporary lull or spike in operations. As with any regional shopping center, the Brea Mall experiences periodic transitions in tenants and occupancy. The Sears department store was in continuous operations from 1977 until it was vacated in April 2018. The first floor of the Sears department store is under a short-term lease by another retail store. Therefore, this EIR considers full occupancy associated with historical operations of the retail use that was vacated by Sears as the baseline for the transportation analysis.

R3-12 See response to Comment R3-11. Reoccupation of the Sears building would not require new discretionary permits; the first floor of the Sears department store is now under a short-term lease by another retail store.

R3-13 Since the EIR was circulated, Senate Bill 743 (SB 743) went into effect. Under the new Guidelines, VMT-related metric(s) that evaluate the significance of transportation-related impacts under CEQA for development projects, land use plans, and transportation infrastructure projects are required beginning on July 1, 2020. The legislation does not preclude the application of local general plan policies, zoning codes, conditions of approval, or any other planning requirements that require evaluation of LOS, but these metrics may no longer constitute a basis for determining transportation impacts under CEQA. The City of Brea adopted VMT metrics for CEQA development projects in October 2020. The Final EIR includes changes to Section 5.12, *Transportation*, to reflect the new VMT thresholds adopted by the City (see also FEIR, Volume II, Appendix I2). In addition, a revised Transportation Analysis is provided (see FEIR, Volume II, Appendix I1). As indicated in Chapter 5.12, *Transportation* (see Volume I of the FEIR), the proposed project would not result in significant transportation-related impacts, with the exception of stacking at the project's driveways (see Impact 5.12-3).

R3-14 As shown in Table 5.12-2, the project generates an increase of 310 AM weekday and 309 PM weekday peak hour trips. FEIR Appendix I (see Volume II) contains the Traffic Impact Assessment, which includes detailed methodology and calculations used to identify the project's peak hour trips to State Route 57 peak hour traffic volumes. Caltrans did not identify any concerns with this traffic methodology.

R3-15 Consistency with plans for alternative transportation (pedestrian, bicycle, and transit) plans is discussed on page 5.12-87 of the Draft EIR. This section describes improvements provided by the project to encourage use of alternative transportation rather than single-occupancy vehicle trips, consistent with these plans. As identified in the EIR, the Orange County Transportation Authority (OCTA) operates the Brea Transit Center on OCTA-owned land off of State College Boulevard. The transit stops are all located at this Brea Transit Center. The project would not result in modifications to the Brea Transit Center or OCTA's operations; and therefore, would not impact services at this facility. Furthermore, access to the Brea Transit Center would be enhanced through the planned bicycle connections on the Brea Mall ring road.

R3-16 See also response to Comment R3-11. The City met with Caltrans in February 2020 to discuss planned and potential projects along the Imperial Highway corridor. It should be noted that since the EIR was circulated, SB 743 went into effect. Under the new Guidelines, congestion-based metrics (i.e., level of service [LOS]) may no longer constitute a basis for determining transportation impacts under CEQA. Therefore, Mitigation Measure TRAF-1 is no longer warranted. The Final EIR includes changes to Section 5.12, *Transportation*, to reflect the new VMT thresholds adopted by the City (see also FEIR, Volume II, Appendix I2). In addition, a revised Transportation Analysis is provided (see FEIR, Volume II, Appendix I1).

2. Response to Comments

R3-17 See response to Comment R3-1. The Brea Mall Mixed Use Project EIR evaluates reasonability foreseeable development within the 73.8-acre mall project site. For this EIR, the reasonability foreseeable development is associated with the up to 15.5-acre expansion area. Macy's has not formally submitted a development application for Macy's parcel within Brea Mall. The lead agency's mere awareness of a potential future project is insufficient to demonstrate that the project is a probable future project.

R3-18 See response to Comment R3-2. The Brea Core Plan is in the input-gathering and visioning stage has not yet progressed to the stage where changes to the land use designations and zoning regulations are being considered by the City. As the Draft Brea Core Plan has not been released, nor is the Plan finalized, it would be speculative to include an alternative that is based on this incomplete and working document.

R3-19 The City disagrees with the Commenter that the alternatives discussion does not contain enough information to evaluate the impacts of the alternatives compared to the project. Chapter 7 of the Draft EIR provides information sufficient to allow an informed comparison of the impacts of the project with those of the alternatives. This Chapter indicates whether each alternative would result in less, more, or similar environmental impacts, compared to the proposed project. Additionally, Table 7-9 provides a matrix showing the major characteristics and significant environmental effects of each alternative to summarize the comparison of alternatives with the proposed project.

R3-20 The comments on the project's site plan and design have been noted and forwarded to decision-makes for their review and consideration. However, the do not raise environmental issues requiring further response.

R3-21 See also response to Comment R3-15 and R3-18. Brea Core Plan is in the input-gathering and visioning stage has not yet progressed to the stage where changes to the land use designations and zoning regulations are being considered by the City. Access to the Brea Transit Center would be enhanced through the planned bicycle connections on the Brea Mall ring road.

LETTER R4 – **Manatt, Phelps & Phillips, LLP, on Behalf of Simon Property Group** (1 of 4 pages)

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March 2, 2020

Client-Matter: 64394-030

VIA EMAIL: JESSICAM@CITYOFBREA.NET

Jessica M. Magana
Associate Planner
City of Brea - Planning Division
1 Civic Center Circle
Brea, CA 92821

Re: Draft Environmental Impact Report for the Brea Mixed Use Project (DEIR)

Dear Ms. Magana:

This letter is submitted on behalf of Simon Property Group (Simon), the majority owner of the Brea Mall (see DEIR Table 3-1 at page 3-9), and owner of that portion of the Brea Mall proposed for redevelopment with a mix of retail, residential, and recreational uses (the Project) that are analyzed in the DEIR. The Project site is approximately 17.5 acres, the majority of which consists of the parcel formerly owned by Sears and occupied by a 161,900 square feet (sf) Sears store that was closed in April, 2018. Simon purchased the Sears parcel several years before its closure. While Simon could have simply chosen to re-tenant the vacant Sears building with another large retail tenant, it decided to use the opportunity of the Sears store closure to re-think how retail development should be presented in the future and what mix of uses would provide the greatest benefit to the Brea Mall and City. The proposed Project provides a mix of uses – residential, retail and recreational – which provides housing in an area that is considered "jobs rich" by the Southern California Association of Governments, and developing a mix of uses that would help minimize vehicle trips by placing housing closer to retail, restaurants, and recreation (fitness center) uses. Minimizing vehicle miles could also potentially be realized by the proximity of these uses to the City's civic center, the Embassy Suites, Brea Place mixed-use project and anticipated nearby senior housing. R4-1

Project Description:

Section 3.2 1 of the Project Description provides background regarding the history of the Brea Mall. Key to the proposed redevelopment Project is Simon's decision to not exceed the commercial square footage that was contemplated for full build-out of the Mall since 1987. R4-2

Section 3.2.1.2 provides information regarding the development agreement that was entered into between the City and the then-owner of the Mall in 1987. The development

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agreement, which was in effect for 20 years until 2007, vested the entitlements for the Mall as it existed in 1987, as well as future expansion of the Mall consistent with the development agreement. The last sentence of Section 3.2.1.2 requires a clarification. The development agreement established the full build-out potential of the Mall at 1,766,900 sf of Gross Building Area, or 1,468,400 sf of Gross Leasable Area. The maximum square footage established under the development agreement is considerably less than what could be built out under the City's General Plan.

The General Plan designates the 74-acre site Regional Commercial which has a maximum Floor Area Ratio (FAR) of 0.65. The General Plan would allow for a maximum development of approximately 2 million sf of commercial development. The existing Mall consists of 1,291,433 sf and its FAR is approximately 0.43; considerably less than what would be allowed under General Plan build-out. R4-2 CONT'D

The Project proposes the development of 1,441,058 sf which represents an increase of 149,625 sf over existing development, but still under the maximum Gross Leasable Area square footage that was contemplated for the Mall in 1987 and reflected in the development agreement until it expired in 2007.

In addition to the development agreement square footage clarification in the Project Description, we submit the following comments on several other sections of the DEIR.

Section 5.7, Land Use:

The DEIR's Land Use Section evaluates the project's consistency with various policies in the City's General Plan evaluates whether the project would conflict with applicable plans. The DEIR concludes that the project would be consistent with the policies of the General Plan that were cited in the DEIR (see DEIR at pages 5.7-5 and 5.7-6). While the DEIR cited a number of policies in the Land Use Element, there are other policies that we believe are not only relevant, but underscore how the proposed project's mixed use elements will implement the land use goals of the City. Those policies include: R4-3

- Policy CD-23.2 Provide opportunities for mixed-use, office, manufacturing, and retail development that respond to market and community needs in terms of size, location, and cost.

- Policy CD-23.4 Encourage new development along highly visible corridors that is pedestrian oriented and includes a mixture of retail, residential, and office uses.

LETTER R4 – **Manatt, Phelps & Phillips, LLP, on Behalf of Simon Property Group** (3 of 4 pages)

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- Policy CD-26.3 Explore opportunities for mixed-use development projects on sites historically supporting commercial centers.

- Policy CD-27.4 Explore infill development opportunities wherever possible as open space becomes more limited.

As the nature of the retail market evolves, the Project site provides Simon and the City with an opportunity to develop this mixed-use project with retail, residential, recreational, and civic use components that address the need for new housing in a walkable surrounding close to businesses, shopping and recreational opportunities consistent with Policy CD-23.2. And, in furtherance of Policy CD 26.3, the Project's mix of uses provides a creative development solution for the City's major retail center. The location of the proposed mixed-use project along the Imperial Highway and Randolph Street corridor is consistent with and implements Policy CD-23.4. Lastly, given Brea's desire to protect its open space and hillsides, the Project site provides an ideal, infill location for redevelopment consistent with Policy CD-27.4.

Encouraging the development of mixed-use projects that combine residential and commercial was also cited in the City's Housing Element as a means to increase the supply and mix of housing opportunities in the City. The Brea Mall was cited as one of the "opportunity sites" on which mixed use development that includes higher density housing should be considered given its proximity to jobs, services and transit. Development of residential uses at the Brea Mall was specifically identified as potentially helping the City to implement the goals of SB 375's Sustainable Communities Strategy to reduce greenhouse gas emissions. (See 2014-2021 Housing Element at page 3-142.) In addition, a proposed General Plan Amendment was also identified as one of the vehicles that may be required to promote development of mixed use and high density residential development at the Mall. (*Id.*)

R4-3 CONT'D

In conclusion, in addition to the General Plan policies cited in the DEIR, the Project is consistent with and implements a number of additional General Plan policies and neither the development nor the proposed General Plan Amendment and Zone Change would present a significant impact, but in fact, implements the City's General Plan policies that envisioned increasing housing opportunities on this site as part of an overall mixed-use development.

Section 5.9, Population and Housing:

The DEIR at page 5.9-10 discusses the impact of the proposed Project on housing in the City. The DEIR analyzed the Project against the 2016 Growth Projections for the City of Brea prepared by the Southern California Association of Governments (SCAG). Since that time, both the State and SCAG recognize that the shortage of housing in California has become a critical issue. In November, 2019, SCAG approved new Regional Housing Needs Assessment (RHNA)

R4-4

2. Response to Comments

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manatt

allocations for many Orange County cities which it intends to submit to the State Department of Housing and Community Development. Brea's RHNA allocation increased from 1,851 new units (see Table 5.9-3 at page 5.9-5) to 2,302 units.

The Project proposes 312 new units which will address the need for additional housing in the City. In addition, the Project will also comply with the City's Affordable Housing Ordinance and will designate 10% of the units as affordable housing units which will also help the City address its RHNA allocations for affordable units. In conclusion, the Project's residential component and its proposal to provide 10% affordable units onsite will assist the City in meeting is housing goals and RHNA requirements. R4-4 CONT'D

Section 5.11, Recreation:

The recreational amenities provided by the Project are described on page 5.11-4. The Project will provide not only an internal bike lane, it will also provide a multi-modal path/network at and on the perimeter of the Brea Mall that will help provide linkages to The Tracks at Brea Trails to Brea Downtown, La Floresta and other neighborhoods in the City. These recreational amenities would help address the demand for recreational facilities within the City without resulting in any new significant impacts. R4-5

In conclusion, we appreciate your consideration of these comments and inclusion of the additional information presented in this letter into the Final EIR that is presented to the Planning Commission and City Council for certification.

Very truly yours,

Manatt, Phelps & Phillips, LLP

Susan K. Hori

cc: Charles Davis
Jocelyn Gubler

325915199.1

R4. Response to Comments from Susan K. Hori, Manatt, Phelps & Phillips, LLP, on Behalf of Simon Property Group, dated March 2, 2020.

R4-1 Response to comments provided on behalf of the project Applicant, Simon Property Group (Simon), are provided below. The comments that Simon could have chosen to re-tenant the Sears parcel with another large retail tenant are noted.

R4-2 The comments on the project history, Development Agreement, comparison to the General Plan designations, and reasons for Simon to bring forth the proposed project are noted. The clarification on the square footage (gross building area and gross leasable area) have been incorporated in the revised Draft EIR (Volume I of this FEIR).

R4-3 The consistency with the additional policies have been incorporated into Section 5.7, *Land Use and Planning*, in the revised Draft EIR (Volume I of this FEIR).

R4-4 The comment regarding Brea's Regional Housing Needs Assessment (RHNA) allocation and the need for additional housing in the City is noted. Since the Draft EIR was circulated, the City of Brea has adopted its Housing Element Update, which incorporates the latest RHNA.

R4-5 The comment regarding the project's recreational amenities and how the project provides linkages to The Tracks at Brea Trails to Brea Downtown, La Floresta, and other neighborhoods is noted.

2. Response to Comments

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LETTER R5 – **Lozeau Drury LLP on behalf of Supporters Alliance for Environmental Responsibility** (1 of 9 page)

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March 2, 2020

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Re: DEIR Comment and CEQA and Land Use Notice Request for Brea Mall Mixed Use (SCH 2019080299)

Dear Ms. Lilley, Mr. Linares, and Ms. Harris-Neal:

I am writing on behalf of Supporters Alliance for Environmental Responsibility ("SAFER") regarding the Draft Environmental Impact Report ("DEIR") for the project known as Brea Mall Mixed Use Project (SCH 2019080299), including any and all actions related or referring to the proposed development of a mixed-use project including retail, 312 for-rent residential apartments, a resort-type fitness center, and outdoor plazas and gathering spaces, located on approximately 74 acres west of State College Blvd., north of Imperial Highway (State Route 91), east of South Randolph Avenue, and south of East Birch Street, at 1065 Brea Mall in the City of Brea ("Project"). INTRO

After reviewing the DEIR, we conclude that the DEIR fails as an informational document and fails to impose all feasible mitigation measures to reduce the Project's impacts. SAFER requests that the Community Development Department address these shortcomings in a revised draft environmental impact report ("RDEIR") and recirculate the RDEIR prior to considering approvals for the Project. We reserve the right to supplement these comments during review of the Final EIR for the Project and at public hearings

2. Response to Comments

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concerning the Project. *Galante Vineyards v. Monterey Peninsula Water Management Dist.*, 60 Cal. App. 4th 1109, 1121 (1997).

I. LEGAL STANDARDS

CEQA requires that an agency analyze the potential environmental impacts of its proposed actions in an environmental impact report ("EIR") (except in certain limited circumstances). (See, e.g., Pub. Res. Code § 21100.) The EIR is the very heart of CEQA. (*Dunn-Edwards v. BAAQMD* (1992) 9 Cal.App.4th 644, 652.) "The 'foremost principle' in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." (*Communities for a Better Environment v. Calif. Resources Agency* (2002) 103 Cal. App. 4th 98, 109.)

CEQA has two primary purposes. First, CEQA is designed to inform decision makers and the public about the potential, significant environmental effects of a project. (14 Cal. Code Regs. ("CEQA Guidelines") § 15002(a)(1).) "Its purpose is to inform the public and its responsible officials of the environmental consequences of their decisions before they are made. Thus, the EIR 'protects not only the environment but also informed self-government.'" (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal. 3d 553, 564) The EIR has been described as "an environmental 'alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return." (*Berkeley Keep Jets Over the Bay v. Bd. of Port Comm'rs.* (2001) 91 Cal. App. 4th 1344, 1354 ("Berkeley Jets"); *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810)

INTRO CONT'D

Second, CEQA requires public agencies to avoid or reduce environmental damage when "feasible" by requiring "environmentally superior" alternatives and all feasible mitigation measures. (CEQA Guidelines § 15002(a)(2) and (3); See also, *Berkeley Jets*, 91 Cal. App. 4th 1344, 1354; *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564) The EIR serves to provide agencies and the public with information about the environmental impacts of a proposed project and to "identify ways that environmental damage can be avoided or significantly reduced." (Guidelines §15002(a)(2)) If the project will have a significant effect on the environment, the agency may approve the project only if it finds that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that any unavoidable significant effects on the environment are "acceptable due to overriding concerns." (Pub.Res.Code § 21081; 14 Cal.Code Regs. § 15092(b)(2)(A) & (B)) The lead agency may deem a particular impact to be insignificant only if it produces rigorous analysis and concrete substantial evidence justifying the finding. (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 732 (Cal. App. 5th Dist. 1990)).

While the courts review an EIR using an "abuse of discretion" standard, "the reviewing court is not to 'uncritically rely on every study or analysis presented by a project

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proponent in support of its position. A 'clearly inadequate or unsupported study is entitled to no judicial deference.'" (*Berkeley Jets*, 91 Cal. App. 4th 1344, 1355 (emphasis added), quoting, *Laurel Heights Improvement Assn. v. Regents of University of California*, 47 Cal. 3d 376, 391 409, fn. 12 (1988)) As the court stated in *Berkeley Jets*, 91 Cal. App. 4th at 1355:

> A prejudicial abuse of discretion occurs "if the failure to include relevant information precludes informed decisionmaking and informed public participation, thereby thwarting the statutory goals of the EIR process." (*San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal. App. 4th 713, 722]; *Galante Vineyards v. Monterey Peninsula Water Management Dist.* (1997) 60 Cal. App. 4th 1109, 1117; *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal. App. 4th 931, 946).

INTRO CONT'D

Courts must use their independent judgment to review the adequacy of the EIR as an informational document. *Sierra Club v. County of Fresno*, 6 Cal. 5th 502, 515, 431 P.3d 1151, 1161 (2018).

II. DISCUSSION.

A. The DEIR Fails to Analyze Indoor Air Quality Impacts from Nearby Highways.

The Project is proposed to be located near the junction of SR-90 and SR-57, two extremely busy roadways. Large freeways are known to be major sources of toxic air pollution, particularly, diesel particulate matter ("DPM"), which is listed by the State of California as a known human carcinogen. The Project will contribute traffic to these roadways, thereby increasing emissions. The pollution will impact the residents of the proposed Project.

R5-1

The DEIR fails to analyze this impact and is therefore inadequate as an informational document. A revised DEIR should be prepared to analyze the cancer risk posed by indoor air quality, and to compare the risk to the 10 per million airborne CEQA cancer risk threshold. If the impact is significant, the RDEIR should propose feasible mitigation measures such as the use of indoor air filtration units (MERV).

In the case of *California Bldg. Indus. Assn. v. Bay Area Air Quality Mgmt. Dist.*, 62 Cal. 4th 369, 388, 362 P.3d 792, 801 (2015), the Supreme Court held that a CEQA document does not need to analyze the impact of existing roadway pollution on a proposed project unless the "project could exacerbate hazards that are already present." Id. Since the Project will exacerbate pollution by contributing to traffic on SR-90 and SR57, the impact must be analyzed under CEQA.

B. The EIR Fails to Analyze Indoor Air Quality Impacts from Formaldehyde.

R5-2

2. Response to Comments

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The Project may expose future residents to significant impacts related to indoor air quality, and in particular, emissions for the cancer-causing chemical formaldehyde. Many composite wood products typically used in modern home construction contain formaldehyde-based glues which off-gas formaldehyde over a very long time period. The primary source formaldehyde indoors is composite wood products manufactured with urea-formaldehyde resins, such as plywood, medium density fiberboard, and particle board. These materials are commonly used in residential building construction for flooring, cabinetry, baseboards, window shades, interior doors, and window and door trims.

Formaldehyde is a known human carcinogen. There is a fair argument that residents of the Project will be exposed to a cancer risk from formaldehyde above the South Coast Air Quality Management District (SCAQMD) CEQA significance threshold for airborne cancer risk of 10 per million. Even if the Project uses modern "CARB-compliant" materials, formaldehyde will create a cancer risk more than ten times above the CEQA significance threshold. This significant environmental impact should be analyzed in an EIR and mitigation measures should be imposed to reduce the risk of formaldehyde exposure. R5-2 CONT'D

There are several feasible mitigation measures, such as requiring the use of no-added-formaldehyde composite wood products, which are readily available. Since the EIR does not analyze this impact at all, none of these or other mitigation measures are considered.

C. The EIR Improperly Analyzes Air Quality Impacts.

The DEIR improperly concludes that the Project's air quality impacts will be less than significant. The DEIR concludes that the Project will have combined operational/construction emissions of 79 pounds per day (ppd) of volatile organic compounds (VOCs), which exceeds the CEQA significance threshold of 55 ppd for VOCs. However, the DEIR concludes that this impact is insignificant. The DEIR's rationale is that there is no threshold for combined construction/operational emissions.

The DEIR's analysis is improper. The South Coast Air Quality Management District (SCAQMD) has a 55 ppd significance threshold for VOC emissions. The Project will exceed that threshold. It is irrelevant that some of the emissions are from construction and some from operations. As the court explained in Kings County Farm Bureau v. Hanford (1990) 221 Cal.App.3d 692, "it is inaccurate and misleading to divide the project's air emissions analysis into on-site and secondary emissions for purposes of invoking the presumption the project will have no significant impact." *Kings County Farm Bureau*, 221 Cal.App.3d at 717. In that case, the lead agency relied on the offset standard adopted by the Kings County Air Pollution Control District ("KCAPCD") for on-site (stationary source) emissions to find that the Project's direct air quality impacts would be less than significant. Id. at 712-15. The Court of Appeal rejected this analysis, finding that "KCAPCD rules and standards are designed to measure pollution emissions from more narrowly drawn sources, i.e., stationary R5-3

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sources," which "requires the division of a project into parts for purposes of review." Id. at 716. But CEQA "is designed to measure all project-related pollution emissions and prohibits the division of a project into parts for purposes of environmental review." Id. The County cannot get around Kings County, and now repeats the mistake of the agency in that case by arguing that under CEQA there are different thresholds of significance for stationary and mobile source emissions.

R5-3 CONT'D

Thus, it is irrelevant that some emissions are from construction activities and some are from operations. The breathing public and the environment does not care how the VOCs are generated – only that a significant amount of VOCs are being released into the air.

A RDEIR must be prepared to analyze the Project's significant VOC emissions and to propose feasible measures to reduce these emissions.

D. The DEIR Improperly Defers Hazadous Material Mitigation Measures.

The DEIR admits that the Project may have significant impacts related to soil contamination. However, the DEIR improperly defers mitigation of these impacts. The DEIR states, "Prior to issuance of grading permits, the project applicant shall prepare a soil management plan." (DEIR 1-36.)

CEQA prohibits such deferred mitigation. Feasible mitigation measures for significant environmental effects must be set forth in an EIR for consideration by the lead agency's decision makers and the public before certification of the EIR and approval of a project. The formulation of mitigation measures generally cannot be deferred until after certification of the EIR and approval of a project. Guidelines, section 15126.4(a)(1)(B) states: "Formulation of mitigation measures should not be deferred until some future time. However, measures may specify performance standards which would mitigate the significant effect of the project and which may be accomplished in more than one specified way."

R5-4

"A study conducted after approval of a project will inevitably have a diminished influence on decisionmaking. Even if the study is subject to administrative approval, it is analogous to the sort of post hoc rationalization of agency actions that has been repeatedly condemned in decisions construing CEQA." (*Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 307.) "[R]eliance on tentative plans for future mitigation after completion of the CEQA process significantly undermines CEQA's goals of full disclosure and informed decisionmaking; and[,] consequently, these mitigation plans have been overturned on judicial review as constituting improper deferral of environmental assessment." (*Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 92.)

E. The DEIR Fails to Adequately Mitigate Significant Traffic Impacts.

R5-5

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The DEIR admits that the Project will have significant unmitigated impacts on traffic. However, the DEIR fails to impose feasible traffic mitigation measures. For this reason, the DEIR fails to meet CEQA's most important requirement – namely to impose all feasible mitigation measures to reduce significant impacts.

The DEIR states:

"The traffic impact analysis identified the following potential mitigation measures for intersections #16-Harbor Boulevard at Imperial Highway, #18-Brea Boulevard at Imperial Highway, #19-Randolph Avenue at Imperial Highway, #20-State College at Imperial Highway, #22-State Route 57 Northbound Ramps at Imperial Highway, and #23- Associated Road at Imperial Highway." "However, these improvements are within Caltrans' right-of-way and are subject to Caltrans review and approval. In addition, Caltrans has no mechanism by which projects can contribute fair share fees to offset impacts. Therefore, the mitigation measure was considered but determined to be infeasible." (DEIR 1-41).

Caltrans has identified that the intersection of Randolph Avenue at Imperial Highway and State College Boulevard at Imperial Highway have elevated incidence of collisions compared to the state average. These collisions are due to vehicles making erratic lane changes to try and enter the SR-57 SB on-ramp along Imperial Highway. Safety at the intersection #20, State College Boulevard and Imperial Highway, could be improved by via modifying the SR-57 SB on-ramp to allow for two lanes onto the freeway and signal upgrades to enhance safety. No correctable conditions were identified for the intersection #19, Randolph Avenue and State College Boulevard. However, these improvements are within the jurisdiction authority of Caltrans. Caltrans has no mechanism by which projects can contribute fair share fees to offset cumulative impacts. Therefore, the mitigation measures were considered but determined to be infeasible. (DEIR 1-42).

R5-5 CONT'D

The City as lead agency cannot defer mitigation measure development to a responsible agency. The Supreme Court held in *City of Marina v. Board of Trustees of California State University*, 39 Cal. 4th 341 (2006), that even if an agency lacks power to implement mitigation itself, it may still make a voluntary contribution to another agency to allow that agency to implement mitigation – even if the law would prohibit the other agency from imposing a mitigation fee on the lead agency. In such circumstances, the lead agency may not conclude that such mitigation is "infeasible." In that case, CSU erred in finding that mitigation was infeasible because it could have contributed to Reuse Authority to allow that agency to mitigate off-site project impacts. The court rejected the trustees' contention that mitigation was infeasible because the trustees could not lawfully contribute to FORA as a way of discharging their obligations under CEQA. It also rejected the trustees' arguments that a contribution by the trustees to FORA would constitute a gift of public funds in violation of Cal. Const., art. XVI, § 6, or that the trustees could not guarantee that FORA would actually implement proposed infrastructure improvements. The trustees could not disclaim

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responsibility for measures necessary to mitigate the project's off-campus environmental effects. Because the trustees abused their discretion in determining that the project's remaining effects could not feasibly be mitigated, it necessarily followed that their statement of overriding considerations in approving the campus master plan was invalid. The Guidelines' logical interpretation of CEQA on this point "avoids the problem of agencies deferring to each other, with the result that no agency deals with the problem. This result would be contrary to the strong policy [requiring the mitigation or avoidance of significant environmental effects] declared in Sections 21002 and 21002.1 of the statute." (Discussion of Resources Agency following CEQA Guidelines, § 15091; see also 1 Kostka, Practice Under the Cal. Environmental Quality Act (Cont.Ed.Bar 2005) § 17.19, pp. 821–823; *City of Marina v. Board of Trustees of California State University*, 39 Cal. 4th 341, 366 (2006).

R5-5 CONT'D

In *Lexington Hills v. State of Calif.* (1988) 200 Cal.App.3d 415, the court held that a CEQA lead agency cannot delegate responsibility to develop mitigation measures to a responsible agency, even if the responsible agency has more expertise in a particular area. Lead agency must use its authority to analyze the entire project and to devise mitigation measures. Id. at 433-435. In *Citizens for Quality Growth v. City of Mount Shasta* (1988) 198 Cal.App.3d 433, the court held that a lead agency cannot refrain from considering means of exercising its own regulatory power simply because another agency has general authority over the impacted natural resource. City could not delegate mitigation measure development for project impacts to wetlands to US Army Corps of Engineers. Id. at 443.

Therefore, the DEIR is inadequate because it fails to impose feasible mitigation measures to reduce the Project's significant traffic impacts.

III. NOTICE REQUEST

We hereby request that the City of Brea ("City") send by electronic mail, if possible, or U.S. Mail to our firm at the address below notice of any and all actions or hearings related to activities undertaken, authorized, approved, permitted, licensed, or certified by the City and any of its subdivisions, and/or supported, in whole or in part, through contracts, grants, subsidies, loans or other forms of assistance from the City, including, but not limited to the following:

R5-6

- Notice of any public hearing in connection with the Project as required by California Planning and Zoning Law pursuant to Government Code Section 65091.
- Any and all notices prepared for the Project pursuant to the California Environmental Quality Act ("CEQA"), including, but not limited to:
    - Notices of any public hearing held pursuant to CEQA.
    - Notices of determination that an Environmental Impact Report ("EIR") is required for the Project, prepared pursuant to Public Resources Code Section 21080.4.

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- Notices of any scoping meeting held pursuant to Public Resources Code Section 21083.9.
- Notices of preparation of an EIR or a negative declaration for the Project, prepared pursuant to Public Resources Code Section 21092.
- Notices of availability of an EIR or a negative declaration for the Project, prepared pursuant to Public Resources Code Section 21152 and Section 15087 of Title 14 of the California Code of Regulations.
- Notices of approval and/or determination to carry out the Project, prepared pursuant to Public Resources Code Section 21152 or any other provision of law.
- Notices of any addenda prepared to a previously certified or approved EIR.
- Notices of approval or certification of any EIR or negative declaration, prepared pursuant to Public Resources Code Section 21152 or any other provision of law.
- Notices of determination that the Project is exempt from CEQA, prepared pursuant to Public Resources Code section 21152 or any other provision of law.
- Notice of any Final EIR prepared pursuant to CEQA.
- Notice of determination, prepared pursuant to Public Resources Code Section 21108 or Section 21152.

R5-6
CONT'D

Please note that we are requesting notices of CEQA actions and notices of any public hearings to be held under any provision of Title 7 of the California Government Code governing California Planning and Zoning Law. **This request is filed pursuant to Public Resources Code Sections 21092.2 and 21167(f), and Government Code Section 65092**, which requires agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body.

In addition, we request that the City send to us via email if possible, or via U.S. Mail, a copy of all Planning Commission and City Council meetings and/or hearing agendas.

Please send notice by electronic mail, if possible, or U.S. Mail to:

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Please call if you have any questions. Thank you for your attention to this matter.

R5-6
CONT'D

Sincerely,

Richard Drury

2. Response to Comments

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R5. Response to Comments from Richard Drury, Lozeau Drury LLP, on behalf of Supporters Alliance for Environmental Responsibility (SAFER), dated March 2, 2020.

Intro Response to comments provided on behalf of the Supporters Alliance for Environmental Responsibility (SAFER) are provided in responses R5-1 through R5-6 below.

R5-1 The Draft EIR evaluates the proposed project's potential to result in physical impacts to the environment. Pursuant to the *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369 (Case No. S213478), impacts of the environment on the proposed project are not CEQA impacts. As identified in Impact 5.2-5, the proposed project would not result in a substantial increase in concentrations of air pollutants as the project does not generate a substantial number of trucks or stationary sources of emissions onsite. Consequently, the proposed project would not exacerbate existing environmental hazards. In regards to air quality compatibility, which is not a CEQA impact, residential land uses are over a quarter mile from State Route 57 (SR-57) and 500 feet away from Imperial Highway. Traffic volumes on Imperial highway (83,344 vehicle per day future plus project) are less than 100,000 vehicles per day cited in the 2005 California Air Resources Board's Air Quality and Land Use Handbook guidance document for siting new sensitive receptors.

R5-2 The Commenter speculates about the types of indoor building materials that would be used during construction. There is no substantial evidence that the proposed project will involve use of materials that contain formaldehyde in levels that pose a risk to human health. Additionally, the proposed project would comply with the California Green Building Standards Code (CALGreen), which requires that all composite wood products used on the interior of a building "shall meet the requirements for formaldehyde as specified in California Air Resources Board (CARB) Air Toxics Control Measure (ATCM) for Composite Wood (17 California Code of Regulations Section 93120 et seq.)." CALGreen, established mandatory planning and design standards for reducing internal air contaminants for formaldehyde under CALGreen Section 5.504.4.5, *Composite wood products*, for non-residential structures[2]. Materials must meet the specified emission limits for formaldehyde, as shown in Table 5.504.4.5 of CALGreen. As stated in the CEQA Guidelines Section 15126.4, compliance with a regulatory permit or other similar process may be identified as mitigation if compliance would result in implementation of measures that would be reasonably expected, based on substantial evidence in the record, to reduce the significant impact to the specified performance standards.

The Commenter has provided no evidence that building materials not in compliance with the above-described regulations would be used, or that building materials consistent with these regulatory schemes pose a threat to human health. Without substantial evidence that building materials that will be used in project construction will emit formaldehyde gas in

[2] Residential buildings four stories and higher are treated under CALGreen's nonresidential standards.

levels that will exceed the State's emission limits, the Commenter's assertion that future project employees could be at risk for carcinogens constitutes speculation, not substantial evidence.

R5-3 The South Coast Air Quality Management District (South Coast AQMD) provides separate thresholds for construction and operational phases of the project. Pursuant to the South Coast AQMD CEQA Air Quality Handbook, the recommended approach to calculate proposed emissions for criteria pollutants is to quantify construction and operation emissions separately and compare each to the applicable construction and operational thresholds of significance (Chapters 6 and 9 of the CEQA Handbook). To the City's knowledge, the South Coast AQMD has not developed or published combined construction and operational emission significance thresholds.[3] Additionally, the South Coast AQMD did not make a request for this type of combined assessment in its comments on the project NOP. Construction emissions are one-time emissions and thus the operational thresholds are not intended to be used to determine significance from overlap of construction and operational activities. As lead agency, the City has determined that that it is more appropriate to apply the South Coast AQMD's regional construction significance thresholds to the construction phase and the regional operational thresholds to the operational phase. However, in order to fully disclose emissions, the EIR also provides a snap-shot of the potential for construction emissions to overlap with the project's operational phase. It should be noted that this scenario is overly conservative as it is based on (1) the peak construction emissions generated by the proposed project and (2) peak operational emissions at buildout. In actuality, construction emissions would not overlap on a peak day when the project is fully built out. Moreover, as stated in Section 5.2, *Air Quality* (see Volume I of the FEIR), the proposed project would implement Mitigation Measure AQ-1 which would ensure the proposed project's emissions would not exceed South Coast AQMD's Regional Construction Threshold.

R5-4 As stated in Chapter 5.6, *Hazards and Hazardous Materials,* the Phase II Environmental Site Investigation found that no further assessment is warranted as constituents found in the soil samples were below their respective health risk screening levels. Mitigation Measure HAZ-1 ensures that in the unlikely event that contaminated soils are uncovered at the project site during construction activities, such soils would be removed and transported offsite in accordance with existing federal and state laws. Pursuant to the CEQA Guidelines Section 15126.4(a)(1)(B), mitigation measures may specify performance standards for mitigating a significant impact when it is impractical or infeasible to specify the specific details of mitigation during the EIR review process, provided the lead agency commits to implement the mitigation, adopts the specified performance standard, and

[3] With the exception of its December 5, 2008 adoption of a greenhouse gas (GHG) Significance Threshold for certain projects where South Coast AQMD is the lead agency. In this methodology for GHGs, the construction emissions are amortized over 30 years and added to the operational emission. The GHG threshold; therefore, is a combined construction and operational thresholds; as opposed to criteria air pollutant threshold, which the CEQA Air Quality Handbook treats separately.

identifies the types of actions that may achieve compliance with the performance standard. In this case, the environmental site investigation concluded that the nature or extent of mitigation that may be required depends on what is uncovered during construction since the Sears building is not yet demolished. Mitigation Measure HAZ-1 lays out clear performance standards for the testing and removal that would be implemented during construction depending on what is uncovered underneath the Sears building. As such, the requirement to prepare and implement a Soils Management Plan is not improper deferral.

R5-5 Since the EIR was circulated, Senate Bill 743 (SB 743) went into effect. Under the new Guidelines, vehicle miles traveled (VMT)-related metric(s) that evaluate the significance of transportation-related impacts under CEQA for development projects, land use plans, and transportation infrastructure projects are required beginning on July 1, 2020. The legislation does not preclude the application of local general plan policies, zoning codes, conditions of approval, or any other planning requirements that require evaluation of LOS, but these metrics may no longer constitute a basis for determining transportation impacts under CEQA. The City of Brea adopted VMT metrics for CEQA development projects in October 2020. The Final EIR includes changes to Section 5.12, *Transportation*, to reflect the new VMT thresholds adopted by the City (see also FEIR, Volume II, Appendix I2). In addition, a revised Transportation Analysis is provided (see FEIR, Volume II, Appendix I1). As a result, the EIR no longer identifies Impact 5.12-1 (transportation impacts to Caltrans' facilities) as a significant impact under the City's new SB 743 thresholds.

R5-6 The Commenter's request to be notified about all actions or hearings related to activities pertaining to the proposed project is noted, and the City will add the Commenter to the distribution/notification list.

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VIA U.S. MAIL & E-MAIL

March 2, 2020

City of Brea
Attn: Jessica Magana
1 Civic Center Circle
Brea, CA 92821
Em: jessicam@ci.brea.ca.us

RE: Brea Mall Mixed Use Project—Draft Environmental Impact Report, SCH No. 2019080299

Dear Ms. Magana:

On behalf of Southwest Regional Council of Carpenters ("**Commenter**" or "**Southwest Carpenters**"), my Office is submitting these comments on the City of Brea's ("**City**" or "**Lead Agency**") Draft Environmental Impact Report ("**DEIR**") (SCH No. 2019080299) for the Brea Mall Mixed Use project ("**Project**").

The Southwest Carpenters is a labor union representing 50,000 union carpenters in six states, including in southern California, and has a strong interest in well-ordered land use planning and addressing the environmental impacts of development projects.

Commenters expressly reserve the right to supplement these comments at or prior to hearings on the Project, and at any later hearings and proceedings related to this Project. (Gov. Code § 65009(b); Pub. Resources Code § 21177(a); *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal. App. 4th 1184, 1199-1203; see *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal. App. 4th 1109, 1121.) INTRO

Commenters incorporate by reference all comments raising issues regarding the DEIR or the final Environmental Impact Report ("**EIR**") submitted prior to certification of the EIR for the Project. (*Citizens for Clean Energy v City of Woodland* (2014) 225 Cal. App. 4th 173, 191 [finding that any party who has objected to the Project's environmental documentation may assert any issue timely raised by other parties].)

Moreover, Commenters request that the Lead Agency provide notice for any and all notices referring or related to the Project issued under the California Environmental

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Quality Act ("**CEQA**"), Pub. Resources Code § 21000 *et seq*, and the California Planning and Zoning Law ("**Planning and Zoning Law**"), Gov. Code §§ 65000–65010. Pub. Resources Code §§ 21092.2, and 21167(f) and Gov. Code § 65092 require agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body.

In addition, the DEIR provides that one of the Project entitlements include Development Agreement (DEIR, P. 3-28), which provides a long term vested right to develop buildings on the Project site. In return for approving a development agreement, however, the City must seriously consider proposing that the Applicant provide additional community benefits such as requiring local hire and paying prevailing wages to benefit the City of Brea. Moreover, it would be beneficial for the City to require the Applicant to hire workers: (1) who have graduated from a Joint Labor Management apprenticeship training program approved by the State of California, or have at least as many hours of on-the-job experience in the applicable craft which would be required to graduate from such a state approved apprenticeship training program and; (2) who are registered apprentices in an apprenticeship training program approved by the State of California.

INTRO CONT'D

I. **EXPERTS**

This comment letter includes comments from air quality and greenhouse gas experts Matt Hagemann, P.G., C.Hg. and Paul Rosenfeld, Ph.D. concerning the DEIR ('Air Quality and GHG Comments"). Their comments, attachments, and Curriculum Vitae ("CV") are attached hereto and are incorporated herein by reference.

Matt Hagemann, P.G., C.Hg. ("Mr. Hagemann") has over 30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Mr. Hagemann also served as Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closer. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) and directed efforts to improve hydrogeologic characterization and water quality monitoring.

For the past 15 years, Mr. Hagemann has worked as a founding partner with SWAPE (Soil/Water/Air Protection Enterprise). At SWAPE, Mr. Hagemann has developed

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extensive client relationships and has managed complex projects that include consultation as an expert witness and a regulatory specialist, and a manager of projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality, and greenhouse gas emissions.

Mr. Hagemann has a Bachelor of Arts degree in geology from Humboldt State University in California and a Masters in Science degree from California State University Los Angeles in California.

Paul Rosenfeld, Ph.D. ("Dr. Rosenfeld") is a principal environmental chemist at SWAPE. Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts on human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risks, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from unconventional oil drilling operations, oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, and many other industrial and agricultural sources. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities. INTRO CONT'D

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

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Dr. Rosenfeld has a Ph.D. in soil chemistry from the University of Washington, M.S. in environmental science from U.C. Berkeley, and B.A. in environmental studies from U.C. Santa Barbara.

This comment letter also includes comments from a scientific and technical expert Robert Kahn concerning the DEIR's traffic and noise analyses ("Traffic Comments" and "Noise Comments"). His comments, attachments, and Curriculum Vitae ("CV") are attached hereto and are incorporated herein by reference.

Robert Kahn, P.E., ("Mr. Kahn") has worked professionally in traffic engineering and transportation planning since 1968. He received his Master of Science degree in civil engineering from the University of California, Berkeley, Institute of Transportation and Traffic Engineering. Mr. Kahn received his bachelor's degree in Civil Engineering from the University of California, Berkeley.

Mr. Kahn started his career in California Division of Highways (Caltrans) and developed the first computerized surveillance and control system for the Los Angeles area. He developed the California Incident Detection Logic which is utilized throughout California for the detection of traffic incidents on the freeway system.

INTRO CONT'D

Mr. Kahn has worked for a major land development company preparing Master Plans for infrastructure. He also has worked eleven years with a multi-disciplined consulting engineering firm in charge of the Engineering Planning Department. This included all facets of preliminary design, tentative map preparation, transportation and environmental engineering, and public agency coordination.

Mr. Kahn has provided traffic and transportation services to major planned communities including Aliso Viejo, Coto De Caza, Foothill Ranch, Highlands Ranch in Denver, Colorado, Mission Viejo, Talega Planned Community in San Clemente, and Wolf Valley Ranch in Temecula. He has also provided contract traffic engineering services to the Cities of Irvine, Norwalk, Perris and San Jacinto in Riverside County, California.

Mr. Kahn has prepared traffic impact studies for numerous communities throughout Southern California, Nevada and in Colorado. Major traffic impact studies include the Aliso Viejo Town Center, the Summit Development, the Shops at Mission Viejo, Kaleidoscope, Dana Point Headlands, Foothill Ranch, Talega, Majestic Spectrum, and Centre Pointe in the City of Chino.

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II. THE PROJECT WOULD BE APPROVED IN VIOLATION OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

A. Background Concerning the California Environmental Quality Act

CEQA has two basic purposes. First, CEQA is designed to inform decision makers and the public about the potential, significant environmental effects of a project. (14 California Code of Regulations ("**CCR**" or "**CEQA Guidelines**") § 15002(a)(1).) "Its purpose is to inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made. Thus, the EIR 'protects not only the environment but also informed self-government.' [Citation.]" (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal. 3d 553, 564.) The EIR has been described as "an environmental 'alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return." (*Berkeley Keep Jets Over the Bay v. Bd. of Port Comm'rs.* (2001) 91 Cal. App. 4th 1344, 1354 (*"Berkeley Jets"*); *County of Inyo v. Yorty* (1973) 32 Cal. App. 3d 795, 810.)

Second, CEQA directs public agencies to avoid or reduce environmental damage when possible by requiring alternatives or mitigation measures. (CEQA Guidelines § 15002(a)(2) and (3); see also, *Berkeley Jets,* 91 Cal. App. 4th 1344, 1354; *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal. 3d 553; *Laurel Heights Improvement Ass'n v. Regents of the University of California* (1988) 47 Cal. 3d 376, 400.) The EIR serves to provide public agencies and the public in general with information about the effect that a proposed project is likely to have on the environment and to "identify ways that environmental damage can be avoided or significantly reduced." (CEQA Guidelines § 15002(a)(2).) If the project has a significant effect on the environment, the agency may approve the project only upon finding that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that any unavoidable significant effects on the environment are "acceptable due to overriding concerns" specified in CEQA section 21081. (CEQA Guidelines § 15092(b)(2)(A–B).)

R6-1

While the courts review an EIR using an "abuse of discretion" standard, "the reviewing court is not to 'uncritically rely on every study or analysis presented by a project proponent in support of its position.' A 'clearly inadequate or unsupported study is entitled to no judicial deference.'" (*Berkeley Jets*, *supra,* 91 Cal. App. 4th 1344, 1355 [emphasis added, quoting *Laurel Heights,* 47 Cal. 3d at 391, 409 fn. 12]. Drawing this line and determining whether the EIR complies with CEQA's information

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disclosure requirements presents a question of law subject to independent review by the courts. (*Sierra Club v. Cnty. of Fresno* (2018) 6 Cal. 5th 502, 515; *Madera Oversight Coalition, Inc. v. County of Madera* (2011) 199 Cal. App. 4th 48, 102, 131.) As the court stated in *Berkeley Jets*, *supra,* 91 Cal. App. 4th at 1355:

> A prejudicial abuse of discretion occurs "if the failure to include relevant information precludes informed decision-making and informed public participation, thereby thwarting the statutory goals of the EIR process.

The preparation and circulation of an EIR is more than a set of technical hurdles for agencies and developers to overcome. The EIR's function is to ensure that government officials who decide to build or approve a project do so with a full understanding of the environmental consequences and, equally important, that the public is assured those consequences have been considered. For the EIR to serve these goals it must present information so that the foreseeable impacts of pursuing the project can be understood and weighed, and the public must be given an adequate opportunity to comment on that presentation before the decision to go forward is made. (*Communities for a Better Environment v. Richmond* (2010) 184 Cal. App. 4th 70, 80 [quoting *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal. 4th 412, 449–450].)

R6-1 CONT'D

B. The Project Description is Not Stable and Finite

A proposed project must contain an accurate, stable, and finite project description in order to be informative and legally sufficient. (CEQA Guidelines § 15124.) As the court stated in *San Joaquin Raptor/Wildlife Rescue Ctr. v County of Stanislaus* (1994) 27 Cal. App. 4th 713, 730, "an accurate project description is necessary for an intelligent evaluation of the potential environmental effects of a proposed activity." Courts have also stated that an accurate and stable project description is necessary so that the lead agency and the public have enough information to "ascertain the project's environmentally significant effects, assess ways of mitigating them, and consider project alternatives." (*Sierra Club v City of Orange* (2008) 163 Cal. App. 4th 523, 533; *Save Round Valley Alliance v County of Inyo* (2007) 157 Cal. App. 4th 1437, 1448.)

R6-2

Here, the DEIR fails to provide an accurate or stable description of the parking that the Applicant will provide for the Project. First, the DEIR states that the Project "would provide a minimum of 539 and 6,160 vehicle parking spaces for the residential and commercial components of the proposed project…" (DEIR at 5.7-7.) Then the

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DEIR states that the number of spaces provided will depend on the results of a parking study conducted by the City; and that "the Brea Mall is proposing to reduce the parking rate" for the Brea Mall. (*Id.*) As of now, the DEIR states the Project will not be providing sufficient parking based on the existing regulations and bases its parking projections on a future requirement, that will be based upon the results of a study, all of which means the number of parking spaces may or may not change after the EIR. (*See id. at* 5.7-7, 8.)

R6-2 CONT'D

The DEIR's current description amounts to: the Applicant plans to provide the number of spaces to meet the requirement. This is not an accurate or stable description and should be revised to reflect the actual number of spaces that will be provided for the Project.

C. The DEIR Fails to Disclose Significant Impacts or Provide All Feasible Mitigation Measures

As stated above, a DEIR must disclose, evaluate, and ultimately provide feasible mitigation measures for significant environmental impacts.

A fundamental purpose of an EIR is to identify ways in which a proposed project's significant environmental impacts can be mitigated or avoided. (Pub. Resources Code §§21002.1(a), 21061.) To implement this statutory purpose, an EIR must describe feasible mitigation measures that can minimize the project's significant environmental effects. (CEQA Guidelines §§15121(a), 15126.4(a).) "A gloomy forecast of environmental degradation is of little or no value without pragmatic, concrete means to minimize the impacts and restore ecological equilibrium." (*Environmental Council of Sacramento v. City of Sacramento* (2006) 142 Cal. App. 4th 1018, 1039.)

R6-3

1. *The DEIR Failed to Disclose Noise Impacts.*

According to Mr. Kahn, the DEIR's noise impact analysis failed to analyze and detect significant impacts to nearby sensitive receptors at The Spa at the Glen which is located only 50 feet from heavy construction activity including demolition of the Sears building. There are also several other businesses including restaurants and banks within close proximity that may similarly be negatively impacted by noise. The Project construction will cause the Project to exceed 80 dBA Leg threshold of significance at 50 feet thus significant noise

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impacts may occur at The Spa at the Glen and other nearby businesses in close proximity. (Noise Comments at 2.)

R6-3 CONT'D

Secondly, according to Mr. Khan's noise analysis, the DEIR does not analyze or disclose vibration impacts to the surrounding businesses. (Noise Expert at 3.) As such businesses such as The Spa at the Glen, and other in close proximity, are likely to experience vibration impacts from heavy construction activities that will exceed the 70 VdB threshold of significance provided in the DEIR. (*Id.*)

R6-4

The DEIR should be amended and include an accurate analysis that discloses all potential locations where construction noise impacts may significantly increase ambient noise levels and provide all necessary and adequate mitigation measures.

D. The DEIR's Project Objectives are Unduly Narrow and Circumscribe Appropriate Project Alternatives

A project description must state the objectives sought by the proposed project. The statement of objectives should include the underlying purpose of the project, and it should be clearly written to guide the selection of mitigation measures and alternatives to be evaluated in the EIR. (CEQA Guidelines § 15124(b).) An EIR's description of the underlying purpose of the project is the touchstone for its identification of specific project objectives, and the statement of project objectives can help to define the contours of the project's purpose. (*Center for Biological Diversity v. County of San Bernardino* (2016) 247 Cal. App. 4th 326, 347.)

While a lead agency has discretion to formulate the project objectives, they cannot be so narrowly defined that they preclude discussion of project alternatives that could still achieve the underlying purpose of the project. (*North Coast Rivers Alliance v. Kawamura* (2015) 243 Cal. App. 4th 647, 668.) This is so because project alternatives that do not achieve the project's underlying purpose need not be considered. (*In re Bay-Delta Programmatic Envt'l Impact Report Coordinated Proceedings* (2008) 43 Cal. 4th 1143, 1166.) And the statement of objectives should be based upon the underlying purpose of the project—not the nature of the project itself. (*Habitat & Watershed Caretakers v. City of Santa Cruz* (2013) 213 Cal. App. 4th 1277, 1299.)

R6-5

Here, the DEIR inappropriately narrows the objectives of the project based upon the nature of the project, and not on any underlying purpose. Objective 1 calls for revitalizing the old Sears parcel with housing, retail, fitness, and open spaces. (DEIR at 7-23). Objective 2 also calls for improvements to the Sears parcel and Sears parking

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areas to create a mixed-use environment. (*Id.*) These objectives are little more than a description of the Project—not a description of the Project's purpose. The objectives are thus so narrowly described that they would foreclose any meaningful discussion of project alternatives that do not call for a mixed-use development on the Project site of the old Sears parcel at the Brea Mall. R6-5 CONT'D

The DEIR needs to formulate objectives such as providing housing or retail space instead of simply describing the Project to foreclose any discussion of Project alternatives that could mitigate the significant impacts of the Project.

E. The DEIR Fails to Support Its Findings with Substantial Evidence

When new information is brought to light showing that an impact previously discussed in the DEIR but found to be insignificant with or without mitigation in the DEIR's analysis has the potential for a significant environmental impact supported by substantial evidence, the EIR must consider and resolve the conflict in the evidence. (See *Visalia Retail, L.P. v. City of Visalia* (2018) 20 Cal. App. 5th 1, 13, 17; see also *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal. App. 4th 1099, 1109.) While a lead agency has discretion to formulate standards for determining significance and the need for mitigation measures—the choice of any standards or thresholds of significance must be "based to the extent possible on scientific and factual data and an exercise of reasoned judgment based on substantial evidence. (CEQA Guidelines § 15064(b); *Cleveland Nat'l Forest Found. v. San Diego Ass'n of Gov'ts* (2017) 3 Cal. App. 5th 497, 515; *Mission Bay Alliance v. Office of Community Inv. & Infrastructure* (2016) 6 Cal. App. 5th 160, 206.) And when there is evidence that an impact could be significant, an EIR cannot adopt a contrary finding without providing an adequate explanation along with supporting evidence. (*East Sacramento Partnership for a Livable City v. City of Sacramento* (2016) 5 Cal. App. 5th 281, 302.) R6-6

In addition, a determination that regulatory compliance will be sufficient to prevent significant adverse impacts must be based on a project-specific analysis of potential impacts and the effect of regulatory compliance. In *Californians for Alternatives to Toxics v. Department of Food & Agric.* (2005) 136 Cal. App. 4th 1, the court set aside an EIR for a statewide crop disease control plan because it did not include an evaluation of the risks to the environment and human health from the proposed program but simply presumed that no adverse impacts would occur from use of pesticides in accordance with the registration and labeling program of the California Department of Pesticide Regulation. (See also *Ebbetts Pass Forest Watch v Department of Forestry & Fire Protection*

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(2008) 43 Cal. App. 4th 936, 956 (fact that Department of Pesticide Regulation had assessed environmental effects of certain herbicides in general did not excuse failure to assess effects of their use for specific timber harvesting project).)

R6-6 CONT'D

1. *The DEIR's Traffic Impact Analysis is Not Based on Substantial Evidence and Fails to Provide Adequate Mitigation Measures.*

According to Mr. Khan, the DEIR's traffic analysis and mitigation is not based on substantial evidence because:

- The Traffic Study failed to evaluate the impacts of all Project driveways on Project intersections; (Traffic Comments at 2.)
- No queuing analysis was performed to evaluate the impact of the proximity of Intersection #14 and the interior Project driveway; (Traffic Comments at 2.)
- Traffic volume was analyzed in May, June and August, but should be analyzed when school is in session to more appropriately reflect traffic conditions; (Traffic Comments at 2-3.)
- Intersection #20 is failing at existing conditions; (Traffic Comments at 3.)
- The DEIR's project trip generation calculation for the fitness facility was not based on local data or trip generation rates in the latest ITE (Institute of Transportation Engineers) Trip Generation Manual; (Traffic Comments at 3.)

R6-7

- The DEIR's project trip generation calculation used an internal capture of 44% for weekday daily, PM peak hour, and Saturday mid-day conditions which is excessive; and this affects internal capture for the shopping center. According to Mr. Khan, it is not likely 44% of residential trips would be contained within the mall itself and a majority of the trips would be external to the property; (Traffic Comments at 3.)
- The DEIR's net trip generation is incorrect, additional project trips were not counted and assigned as necessary based on all existing retail space and the DEIR took advantage of the vacant space in the existing Sears building; (Traffic Comments at 3.)
- There is no justification provided for the Saturday Year 2040 traffic volumes; (Traffic Comments at 3-4.)
- The Project fails to fully fund traffic improvements to Intersection #20 and identify this intersection as a direct and significant impact; (Traffic Comments at 4.)

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- The DEIR failed to identify Intersection #19 as a direct significant impact and fully fund improvements to that intersection. According to Mr. Khan, the Project will significantly increase delays there both during weekday PM and Saturday midday peak hours; (Traffic Comments at 4.)
- The Project will have a cumulative significant impact to Intersection #20 and should pay a fair share contribution to fund improvements there; (Traffic Comments at 4.)
- The Project fails to disclose a cumulative significant impact to Intersection #18 and should pay a pro rata share of improvements there; (Traffic Comments at 4.)
- The DEIR fails to disclose and provide mitigation measures for the cumulative significant impact to several intersections for Year 2040 conditions; (Traffic Comments at 4.)
- The DEIR fails to analyze site access at all six driveway locations that provide access to Brea Mall; (Traffic Comments at 4.)
- The Focused Project Driveway Synchro Queuing Assessment is based on an incorrect average queue time—the correct calculation should be based on the 95th percentile queue from the Syncho printouts in the traffic impact analysis; (Traffic Comments at 4-5.)
- No mitigation is provided for the queuing problem at Intersection #20; (Traffic Comments at 5.)
- The Project will have a direct and significant impact to Intersection #20 and Intersection #19, but fails to fund improvements; (Traffic Comments at 5.)
- The Project will have a cumulative significant impact at Intersections 18, 19, and 20, but the DEIR provides no fair share bases for improvements here; (Traffic Comments at 5.)
- The Project will have a cumulative significant impact at Intersections 16, 18, 19, 20, 22, and 23, but the DEIR fails to provide a fair share contribution for improvements here; (Traffic Comments at 5.)
- The DEIR fails to provide 100% of project related fair share contributions at intersections identified where the Project will have a direct significant impact; (Traffic Comments at 5-6.)
- The DEIR's off-ramp queuing analysis is flawed because it is not based on the 95th percentile queue; (Traffic Comments at 6.)

R6-7
CONT'D

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- Designation of Roadway Segment #4 as not under the Project's radius of influence is unjustified since it is similar to what would occur for weekday conditions for the same roadway segment; and (Traffic Comments at 6.)
- The DEIR's review of collisions at Imperial Highway was unduly narrow and did not include all relevant statistics such as broadside, rear end and other types of collisions which would warrant evaluation to determine the necessary traffic safety improvements. (Traffic Comments at 6-7.)

R6-7 CONT'D

The DEIR should be revised to analyze all of these issues and support its findings with substantial evidence.

2. The DEIR Fails to Supports its Findings on Air Quality Impacts with Substantial Evidence.

The DEIR's air quality impacts analysis is deficient and is not supported by substantial evidence according to Mr. Hagemann and Dr. Rosenfeld, for all of the following reasons:

- The DEIR's air quality analysis relies on unsubstantiated input parameters calculating emissions using CalEEMod.
- Specifically, the DEIR includes unsubstantiated land uses in its model;
- includes an unsubstantiated reduction in CO2 intensity factor;
- underestimated land use sizes;
- failed to include all demolition activities and corresponding emissions;
- includes an unsubstantiated reduction in hauling, vendor, and worker trips;
- includes an unsubstantiated reduction in architectural coatings;
- fails to evaluate all feasibility of using Tier 4 Final equipment;
- uses an unsubstantiated changes to Title 24 Energy Use values;
- uses unsubstantiated changes to wastewater treatment system percentages;
- uses an unsubstantiated application of construction mitigation measures; and
- uses an unsubstantiated application of water-related operational measures.

(Air Quality/GHG Comments at 1-14.)

R6-8

Furthermore, the DEIR failed to evaluate the feasibility of obtaining Tier 4 Final construction equipment, and according to the Air Quality/GHG Comments, this results in an inability to verify the effectiveness of Mitigation Measure AQ-1 to mitigation air quality effects. (Air Quality/GHG Comments at 15.)

R6-9

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3. The DEIR Failed to Conduct a Health Risk Assessment or Analyze Impacts from a Significant Increase in Vehicle Trips.

According to Mr. Hagemann and Dr. Rosenfeld, the DEIR's air quality analysis is flawed, and the conclusion that the Project would have a less than significant impact on nearby sensitive receptors is not supported by substantial evidence because no quantitative construction or operational health risk assessment ("HRA") was performed to analyze impacts to nearby sensitive receptors. (Air Quality/GHG Comments at 15-16.) According to the relevant Comments, "the omission of a quantified HRA is inconsistent with the most recent guidance published by the Office of Environmental Health Hazard Assessment (OEHHA)…[t]he OEHHA document recommends that all short-term projects lasting at least two months be evaluated for cancer risks to nearby sensitive receptors…**Furthermore, once construction is complete, the Project operation will generate a net increase of approximately 4,140 daily vehicle trips**, which will generate additional exhaust emissions and continue to expose nearby sensitive receptors to DPM emissions…" (Air Quality/GHG Comments at 16-17 (emphasis added).) The claim that there would a less than significant impact without doing a quantified HRA to evaluate the risk to nearby sensitive receptors based on SCAQMD's numeric threshold for excess health risk is therefore not based on substantial evidence.

R6-10

When Commenters performed a screening-level assessment to evaluate the potential risk to nearby sensitive receptors, the results of their assessment indicated that "over the course of Project construction and operation, utilizing age sensitivity factors, are approximately 30, 270, 23, and 0.74 in one million, respectively." ((Air Quality/GHG Comments at 20.) And, "[t]he excess cancer risk over the course of a residential lifetime (30 years) at the closest receptor, with age sensitivity factors, is approximately 320 in one million." (*Id.*) Commenters thus conclude that the Project exceeds SCAQMD's threshold of 10 in one million, and the DEIR failed to analyze or disclose this potentially significant impact and an updated analysis should be performed that accurately quantifies air pollution and its corresponding risks to nearby sensitive receptors. (*Id.* at 20-21.)

R6-11

4. The DEIR Failed to Supports its Findings on Greenhouse Gas Impacts with Substantial Evidence.

As explained above, the Project's air emissions were inadequately evaluated because unsubstantiated changes were made to calculations using CalEEMod. As a result, the

R6-12

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GHG analysis relies on underestimated Project emissions and an updated GHG analysis should be performed that accurately reflects the Project's GHG emissions. (*Id.* at 21-22.)

R6-12 CONT'D

F. CEQA Requires that Feasible Mitigation Measures be Implemented

As stated above, for any significant environmental impact, an EIR must provide all feasible mitigation measures to reduce the impact to less than significant or simply to reduce the impact as much as is feasible. According to Mr. Hagemann and Dr. Rosenfeld's Comments on potential GHG and Air Quality impacts, when the correct modeling numbers are utilized, the Project failed to provide substantial evidence for conclusions on air quality and GHG impacts, and also subsequently failed to provide or implement all feasible mitigation measures for these impacts.

Specifically, additional feasible mitigation measures are available to reduce project construction emissions, including:

R6-13

- Implementation of diesel control measures;
- Repowering or replacing older construction equipment engines;
- Installing retrofit devices on existing construction equipment;
- Using electric or hybrid construction equipment;
- Implementing a construction vehicle inventory tracking system; and
- Using spray equipment with greater transfer efficiencies.

(Air Quality/GHG Comments at 22-27.)

The DEIR should be revised to include these and any other feasible mitigation measures to mitigation construction emission impacts.

G. CEQA Bars the Deferred Development of Environmental Mitigation Measures

CEQA mitigation measures proposed and adopted into an environmental impact report are required to describe what actions that will be taken to reduce or avoid an environmental impact. (CEQA Guidelines § 15126.4(a)(1)(B) [providing "[f]ormulation of mitigation measures should not be deferred until some future time."].) While the same Guidelines section 15126.5(a)(1)(B) acknowledges an exception to the rule against deferrals, but such exception is narrowly proscribed to situations where

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"measures may specify performance standards which would mitigate the significant effect of the project and which may be accomplished in more than one specified way." (Id.) Courts have also recognized a similar exception to the general rule against deferral of mitigation measures where the performance criteria for each mitigation measure is identified and described in the EIR. (*Sacramento Old City Ass'n v. City Council* (1991) 229 Cal. App. 3d 1011.)

Impermissible deferral can occur when an EIR calls for mitigation measures to be created based on future studies or describes mitigation measures in general terms but the agency fails to commit itself to specific performance standards. (*Preserve Wild Santee v. City of Santee* (2012) 210 Cal. App. 4th 260, 281 [city improperly deferred mitigation to butterfly habitat by failing to provide standards or guidelines for its management]; *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal. App. 4th 645, 671 [EIR failed to provide and commit to specific criteria or standard of performance for mitigating impacts to biological habitats]; see also *Cleveland Nat'l Forest Found. v San Diego Ass'n of Gov'ts* (2017) 17 Cal. App. 5th 413, 442 [generalized air quality measures in the EIR failed to set performance standards]; California Clean Energy Comm. v City of Woodland (2014) 225 Cal. App. 4th 173, 195 [agency could not rely on a future report on urban decay with no standards for determining whether mitigation required]; *POET, LLC v. State Air Resources Bd.* (2013) 218 Cal. App. 4th 681, 740 [agency could not rely on future rulemaking to establish specifications to ensure emissions of nitrogen oxide would not increase because it did not establish objective performance criteria for measuring whether that goal would be achieved]; *Gray v. County of Madera* (2008) 167 Cal. App. 4th 1099, 1119 [rejecting mitigation measure requiring replacement water to be provided to neighboring landowners because it identified a general goal for mitigation rather than specific performance standard]; *Endangered Habitats League, Inc. v. County of Orange* (2005) 131 Cal. App. 4th 777, 794 [requiring report without established standards is impermissible delay].)

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CONT'D

Here, the Project concluded that mitigation measures were required for hazardous materials impacts relating to the long and sustained presence of a Sears Automotive Center on the Project site. (DEIR at 5.6-21.) However, the mitigation measures that the Applicant provides are impermissibly deferred because they depend on the preparation of a soil management plan that will be submitted for City approval prior to the issuance of permits but *after project approval.* (DEIR at 5.6-20.) The DEIR stipulates that "the project applicant *shall prepare* a soil management plan (SMP) to ensure safe

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and appropriate handling, transportation, offsite disposal, reporting, oversight, and protocols used during construction to protect the health an safety of workers and future residents." (*Id.* (emphasis added).) Importantly, the DEIR specifies that the future SMP will establish a plan on handling encounters of previously unknown hazardous materials without specifying how detection would occur, how the soil will be tested, what oversight will be provided, how the soil will be removed, etc.

R6-14 CONT'D

The DEIR is deferring the formulation of the SMP to safely remove hazardous materials at the site; and it should provide all of the details of the SMP now so that it's adequacy may be analyzed by the public who could be impacted by the Project.

III. THE PROJECT VIOLATES THE STATE PLANNING AND ZONING LAW AS WELL AS THE CITY'S GENERAL PLAN

A. Background Regarding the State Planning and Zoning Law

Each California city and county must adopt a comprehensive, long-term general plan governing development. (*Napa Citizens for Honest Gov. v. Napa County Bd. of Supervisors* (2001) 91 Cal. App.4th 342, 352, citing Gov. Code §§ 65030, 65300.) The general plan sits at the top of the land use planning hierarchy (See *DeVita v. County of Napa* (1995) 9 Cal. App. 4th 763, 773), and serves as a "constitution" or "charter" for all future development. (*Lesher Communications, Inc. v. City of Walnut Creek* (1990) 52 Cal. App. 3d 531, 540.)

General plan consistency is "the linchpin of California's land use and development laws; it is the principle which infused the concept of planned growth with the force of law." (See *Debottari v. Norco City Council* (1985) 171 Cal. App. 3d 1204, 1213.)

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State law mandates two levels of consistency. First, a general plan must be internally or "horizontally" consistent: its elements must "comprise an integrated, internally consistent and compatible statement of policies for the adopting agency." (See Gov. Code § 65300.5; *Sierra Club v. Bd. of Supervisors* (1981) 126 Cal. App. 3d 698, 704.) A general plan amendment thus may not be internally inconsistent, nor may it cause the general plan as a whole to become internally inconsistent. (See *DeVita*, 9 Cal. App. 4th at 796 fn. 12.)

Second, state law requires "vertical" consistency, meaning that zoning ordinances and other land use decisions also must be consistent with the general plan. (See Gov. Code § 65860(a)(2) [land uses authorized by zoning ordinance must be "compatible with the objectives, policies, general land uses, and programs specified in the

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[general] plan."]; see also *Neighborhood Action Group v. County of Calaveras* (1984) 156 Cal. App. 3d 1176, 1184.) A zoning ordinance that conflicts with the general plan or impedes achievement of its policies is invalid and cannot be given effect. (See *Lesher*, 52 Cal. App. 3d at 544.)

State law requires that all subordinate land use decisions, including conditional use permits, be consistent with the general plan. (See Gov. Code § 65860(a)(2); *Neighborhood Action Group*, 156 Cal. App. 3d at 1184.)

A project cannot be found consistent with a general plan if it conflicts with a general plan policy that is "fundamental, mandatory, and clear," regardless of whether it is consistent with other general plan policies. (See *Endangered Habitats League v. County of Orange* (2005) 131 Cal. App. 4th 777, 782-83; *Families Unafraid to Uphold Rural El Dorado County v. Bd. of Supervisors* (1998) 62 Cal. App. 4th 1332, 1341-42 ["*FUTURE*"].) Moreover, even in the absence of such a direct conflict, an ordinance or development project may not be approved if it interferes with or frustrates the general plan's policies and objectives. (See *Napa Citizens*, 91 Cal. App. 4th at 378-79; see also *Lesher*, 52 Cal. App. 3d at 544 [zoning ordinance restricting development conflicted with growth-oriented policies of general plan].) R6-15 CONT'D

A. The Project is Inconsistent with the City's Affordable Housing Ordinance

The City of Brea has enacted an Ordinance requiring affordable housing under §§ 20.40.010-080. Any residential development of 20 or more units must either set aside 10% of those units for affordable housing upon a determination there would be no economic burden on the developer; or a project applicant must pay fees with the approval of the Planning Commission in lieu of the housing set asides for a project. (City of Brea Ord. 934; §§ 20.40.010-080.) This Project fails to provide the minimum 10% set aside for affordable housing units and, at least according to the DEIR, did not receive permission from the Planning Commission to pay a fee in lieu of the set aside. Thus, the Project is in direct violation of the City's Affordable Housing Ordinance.

B. The Lack of Affordable Housing is Inconsistent with the City's Regional Housing Needs Allocation

Since 1969, California has required that all local governments (cities and counties) adequately plan to meet the housing needs of everyone in the community. California's local governments meet this requirement by adopting housing plans as part of their R6-16

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"general plan" (also required by the state). General plans serve as the local government's "blueprint" for how the city and/or county will grow and develop and include seven elements: land use, transportation, conservation, noise, open space, safety, and housing. The law mandating that housing be included as an element of each jurisdiction's general plan is known as "housing-element law." California's housing-element law acknowledges that, in order for the private market to adequately address the housing needs and demand of Californians, local governments must adopt plans and regulatory systems that provide opportunities for (and do not unduly constrain), housing development. As a result, housing policy in California rests largely on the *effective implementation* of local general plans and, in particular, local housing elements. Existing law requires the housing element to contain a program that sets a 5-year schedule of actions to implement the goals and objectives of the housing element under RHNA allocations. Existing law also requires cities and counties to review and revise their housing elements at least every 5 years for compliance. (Gov. Code § 65584.)

R6-16 CONT'D

As stated above, the Project contains no affordable housing units, nor does it pay any fees under Brea Ord. 934. As of the last City of Brea Housing Element Progress Report—the City is clearly behind providing housing for very low and low income residents.[1] Therefore, the Project is inconsistent with the City's RHNA allocation numbers and affordable housing should be provided so that the City can meets its targets.

IV. RECIRCULATION IS REQUIRED FOR SIGNIFICANT NEW INFORMATION

CEQA requires a lead agency to recirculate an EIR when significant new information is added to the EIR following public review but before certification. (Pub. Resources Code § 21092.1.) New information is significant if "the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project" including, for example, "a disclosure showing that … [a] new significant environmental impact would result from the project." (CEQA Guidelines § 15088.5.)

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[1] City of Brea Housing Element, Annual Progress Report, available at: http://www.ci.brea.ca.us/DocumentCenter/View/10203/Attachment-C---Housing-Element-Annual-Progress-Report-2019.

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The critical issue in determining whether recirculation is required is whether any new information added to the EIR is "significant." If added information is significant, recirculation is required under Pub. Resources Code §21092.1. The purpose of recirculation is to give the public and other agencies an opportunity to evaluate the new data and the validity of conclusions drawn from it. (*Spring Valley Lake Ass'n v. City of Victorville* (2016) 248 Cal. App. 4th 91, 108; *Silverado Modjeska Recreation & Park Dist. v. County of Orange* (2011) 197 Cal. App.4th 282, 305; *Save Our Peninsula Comm. v Monterey County Bd. of Supervisors* (2001) 87 Cal. App. 4th 99, 131; *Sutter Sensible Planning, Inc. v Board of Supervisors* (1981) 122 Cal. App. 3d 813, 822.)

In *Laurel Heights Improvement Ass'n v. Regents of Univ. of California* (1993) 6 Cal. 4th 1112, 1130 (Laurel Heights II), the court gave four examples of situations in which recirculation is required:

- When the new information shows a new, substantial environmental impact resulting either from the project or from a mitigation measure;
- When the new information shows a substantial increase in the severity of an environmental impact, except that recirculation would not be required if mitigation that reduces the impact to insignificance is adopted;
- When the new information shows a feasible alternative or mitigation measure, considerably different from those considered in the EIR, that clearly would lessen the significant environmental impacts of a project and the project proponent declines to adopt it; and
- When the draft EIR was "so fundamentally and basically inadequate and conclusory in nature" that public comment on the draft EIR was essentially meaningless.

R6-17 CONT'D

A. <u>The Comments Raise Significant New Information Requiring Recirculation</u>

Significant new information has surfaced that was not previously disclosed in the DEIR relating to air quality and GHG impacts. Specifically, the DEIR concluded that the Project's construction and operational health risk impacts would be less than significant using an LST method analysis to quantify risks from DPM emissions. But as discussed in the Air Quality and GHG Comments, a simple screening-level HRA reveals a significant impact relating to DPM emissions (Air Quality and GHG Comments at 17-21.)

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When Mr. Hagemann and Dr. Rosenfeld prepared a simple screening-level HRA, the results demonstrated and provided substantial evidence there may be a significant environmental impact relating to DPM emissions which posed a serious health risk—for which no feasible and adequate mitigation has been provided in the DEIR. (*Id.*) The DEIR failed to disclose that:

- "[O]ver the course of Project construction and operation, utilizing age sensitivity factors, are approximately 30, 270, 23, and 0.74 in one million, respectively." (Air Quality/GHG Comments at 20); and
- "The excess cancer risk over the course of a residential lifetime (30 years) at the closest receptor, with age sensitivity factors, is approximately 320 in one million." (*Id.*).

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CONT'D

This is clearly information under the *Laurel Heights II* standard requiring recirculation of an EIR because it shows a new, substantial environmental impact resulting from the Project.

Second, the Comments revealed many new mitigation measures for Project construction emissions that would substantially reduce the Project's significant GHG and air quality impacts. This too requires recirculation of the EIR under the *Laurel Heights II* standard.

Third, the DEIR completely failed to analyze potentially significant GHG impacts based on unsubstantiated changes.

For all the above reasons, the DEIR needs to be recirculated so that the public has an opportunity to comment on this significant new information.

V. CONCLUSION

Commenters request that the City revise and recirculate the Project's environmental impact report to address the aforementioned concerns. If the City has any questions or concerns, feel free to contact my Office.

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Sincerely,

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Mitchell M. Tsai
Attorneys for Southwest Regional
Council of Carpenters

ATTACHED:

Air Quality and GHG Expert, Matt Hagemann, P.G., C.Hg. – C.V. (**Exhibit A**);

Air Quality and GHG Expert, Paul Rosenfeld, P.G., C.Hg. – C.V. (**Exhibit B**);

Traffic and Noise Expert, Robert Kahn, P.E. – C.V. (**Exhibit C**);

Letter and attachments from SWAPE to Mitchell M. Tsai re Comments on Brea Mall Mixed Use Project (**Exhibit D**);

Letter and attachments from RK Engineering Group to Mitchell M. Tsai re Brea Mall Mixed Use Project Traffic Impact Analysis (**Exhibit E**); and

Letter and attachments from RK Engineering Group to Mitchell M. Tsai re Brea Mall Mixed Use Project Noise Impact Analysis (**Exhibit F**).

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

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

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

Professional Certifications:
California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

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

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Positions Matt has held include:

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

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

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 300 environmental impact reports and negative declarations since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at more than 150 industrial facilities.
- Expert witness on numerous cases including, for example, perfluorooctanoic acid (PFOA) contamination of groundwater, MTBE litigation, air toxins at hazards at a school, CERCLA compliance in assessment and remediation, and industrial stormwater contamination.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.

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CONT'D

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

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

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

Executive Director:

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

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CONT'D

Hydrogeology:

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

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

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

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

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

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

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

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

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

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

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

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CONT'D

Policy:

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

Activities included the following:

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

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

Geology:

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

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

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

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

Teaching:

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

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

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

Invited Testimony, Reports, Papers and Presentations:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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LETTER R6 – Mitchell M. Tsai (30 of 121 pages)

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

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CONT'D

Other Experience:

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

LETTER R6 – Mitchell M. Tsai (31 of 121 pages)

EXHIBIT B

2. Response to Comments

LETTER R6 – Mitchell M. Tsai (32 of 121 pages)

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. Thesis on wastewater treatment.

Professional Experience

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

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

LETTER R6 – Mitchell M. Tsai (33 of 121 pages)

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:

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.

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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.

2. Response to Comments

LETTER R6 – Mitchell M. Tsai (34 of 121 pages)

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

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

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.

Rosenfeld, P.E., J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

Rosenfeld, P. E., M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities.* Boston Massachusetts: Elsevier Publishing

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004.* New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.

Rosenfeld, P. E., Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS–6), Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

Rosenfeld, P.E., and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality.* 29, 1662-1668.

Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.

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LETTER R6 – Mitchell M. Tsai (35 of 121 pages)

Chollack, T. and **P. Rosenfeld. (**1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., 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.

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CONT'D

Rosenfeld, P.E. (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluoroactane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

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

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

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

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

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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.

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CONT'D

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.

LETTER R6 – Mitchell M. Tsai (37 of 121 pages)

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.

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CONT'D

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.

2. Response to Comments

LETTER R6 – Mitchell M. Tsai (38 of 121 pages)

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

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

Teaching Experience:

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

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

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

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

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation. R6-20

CONT'D

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

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

Academic Grants Awarded:

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

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

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

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

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

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

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

LETTER R6 – Mitchell M. Tsai (39 of 121 pages)

Deposition and/or Trial Testimony:

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

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

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

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

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

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

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

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

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

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs,* vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

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

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

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

In The Iowa District Court For Wapello County
Jerry Dovico, et al., Plaintiffs vs. Valley View Sine LLC, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Doug Pauls, et al.,, et al., Plaintiffs vs. Richard Warren, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

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In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action N0. 14-C-30000
Rosenfeld Deposition, June 2015

In The Third Judicial District County of Dona Ana, New Mexico
Betty Gonzalez, et al. Plaintiffs vs. Del Oro Dairy, Del Oro Real Estate LLC, Jerry Settles and Deward DeRuyter, Defendants
Rosenfeld Deposition: July 2015

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

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014

In the United States District Court Western District of Oklahoma
Tommy McCarty, et al., Plaintiffs, v. Oklahoma City Landfill, LLC d/b/a Southeast Oklahoma City Landfill, et al. Defendants.
Case No. 5:12-cv-01152-C
Rosenfeld Deposition: July 2014

LETTER R6 – Mitchell M. Tsai (41 of 121 pages)

In the County Court of Dallas County Texas
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant.*
Case Number cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., *Plaintiffs,* vs. Republic Services, Inc., et al., *Defendants*
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the United States District Court of Southern District of Texas Galveston Division
Kyle Cannon, Eugene Donovan, Genaro Ramirez, Carol Sassler, and Harvey Walton, each Individually and on behalf of those similarly situated, *Plaintiffs,* vs. BP Products North America, Inc., *Defendant.*
Case 3:10-cv-00622
Rosenfeld Deposition: February 2012
Rosenfeld Trial: April 2013

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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

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EXHIBIT C

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RK engineering group, inc.

Robert Kahn, P.E., T.E

Founding Principal

Areas of Expertise

Traffic Engineering

Transportation Planning

Transportation Solutions

Traffic Impact Analysis

Circulation Systems for Planned Communities

Traffic Control Device Warrants

Traffic Calming

Traffic Safety Studies

Bicycle Planning

Parking Demand Studies

Transportation Demand Management

Traffic Signal, Signing and Striping Plans

Traffic Control Plans

Parking Lot Design

Acoustical Engineering

Noise Impact Studies

Expert Witness / Legal Services

Professional History

RK Engineering Group, Inc., Founding Principal
2001-Present

RKJK & Associates, Inc., Principal, 1990-2000

Robert Kahn and Associates, Inc., Principal, 1988-1990

Jack G. Raub Company,
Vice President Engineering Planning, 1977-1988

The Irvine Company, Program Engineer, 1972-1977

Caltrans CA Division of Highways, Assistant Engineer, 1968-1972

Representative Experience

Robert Kahn, P.E., has worked professionally in traffic engineering and transportation planning since 1968. He received his Master of Science degree in civil engineering from the University of California, Berkeley, Institute of Transportation and Traffic Engineering. Mr. Kahn received his Bachelors degree in Civil Engineering from the University of California, Berkeley.

Mr. Kahn started his career in California Division of Highways (Caltrans) and developed the first computerized surveillance and control system for the Los Angeles area. Mr. Kahn developed the California Incident Detection Logic which is utilized throughout California for the detection of traffic incidents on the freeway system.

Mr. Kahn has worked for a major land development company preparing Master Plans for infrastructure. He also has worked eleven years with a multi-disciplined consulting engineering firm in charge of the Engineering Planning Department. This included all facets of preliminary design, tentative map preparation, transportation and environmental engineering, and public agency coordination.

R6-21

Mr. Kahn has provided traffic and transportation services to major planned communities including Aliso Viejo, Coto De Caza, Foothill Ranch, Highlands Ranch in Denver, Colorado, Mission Viejo, Talega Planned Community in San Clemente, and Wolf Valley Ranch in Temecula. He has also provided contract traffic engineering services to the Cities of Irvine, Norwalk, Perris and San Jacinto in Riverside County, California.

Mr. Kahn has prepared traffic impact studies for numerous communities throughout Southern California, Nevada and in Colorado. Major traffic impact studies include the Aliso Viejo Town Center, the Summit Development, the Shops at Mission Viejo, Kaleidoscope, Dana Point Headlands, Foothill Ranch, Talega, Majestic Spectrum, and Centre Pointe in the City of Chino.

His work in the area of parking demand studies and parking lot design has been extensive. Shared parking studies for the Aliso Viejo Town Center, Foothill Ranch Towne Centre, Trabuco Plaza and numerous commercial sites have been completed to accurately determine the peak parking demand for mixed use projects. Mr. Kahn has been able0 to make the most efficient utilization of parking lots by maximizing efficient and safe systems.

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RK engineering group, inc.

Robert Kahn, P.E., T.E

Founding Principal

Education

University of California, Berkeley, M.S., Civil Engineering, 1968

University of California, Berkeley, B.S., Civil Engineering, 1967

University of California, Los Angeles, Graduate Courses in Transportation Systems, 1970

Registrations

California Registered Civil Engineer
No. 20285 – April 1971

California Registered Professional Engineer
Traffic, No. 0555 – June 1977

Colorado Professional Engineer
No. 22934, November 1984

Nevada Professional Engineer Civil
No. 10722 – March 1994

County of Orange, California Certified Acoustical Consultant
No. 201020 - 1984

Affiliations

Institute of Transportation Engineers (ITE)

American Society of Civil Engineers (ASCE)

Urban Land Institute (ULI)

Orange County Traffic Engineers Council (OCTEC)

Teaching

UCI Graduate Urban Design Studio Class – Guest Instructor

ITS Berkeley – Tech Transfer
Fundamentals of Traffic Engineering – Instructor

UCI Senior Civil Engineering Mentoring Program (CE181)

Mr. Kahn has been an innovator in developing and implementing traffic calming techniques. Over twenty years ago, Mr. Kahn refined the design and implementation standards for speed humps for use in local neighborhoods. Most recently, he has been involved in the development of modern roundabouts in lieu of traffic signals or other traffic control devices at intersections. Mr. Kahn previously presented the use of traffic calming devices in newly developing communities to the Institute of Transportation Engineers Traffic Calming Conference in Monterey, California.

Mr. Kahn has been involved in the design of traffic signal systems, signing and striping plans on hundreds of projects for both the public and private sector. Most recently, he has completed the design of several traffic signals which will serve the renovated Shops at Mission Viejo Mall. Mr. Kahn was in charge of a major ITS project for the City of Irvine, which provided fiberoptic interconnect and closed circuit TV along Barranca Parkway, Alton Parkway and Lake Forest Drive.

Mr. Kahn has been involved in acoustical engineering since 1978. He was in responsible charge of the Aliso Viejo Noise Monitoring Program which redefined the 65 CNEL noise contours for MCAS El Toro. He has also developed computer applications of the FHWA Noise Model.

Mr. Kahn has prepared numerous noise impact reports in the Aliso Viejo, Mission Viejo, Foothill Ranch, Santa Margarita, Ladera and Talega Planned Communities. Noise impacts from stationery sources including car washes, loading docks, air conditioning compressors, drive-thru speakers and other sources have been evaluated in the Aliso Viejo Auto Retail Center Noise Study, Albertsons Store 606 Noise Study-Rancho Cucamonga, Pro Source Distribution Building Final Noise Study in Ontario. Major specific plan and zone change noise studies have been prepared for the Summit Heights Specific Plan in Fontana, Lytle Creek Land and Resources Property in Rialto, Tamarack Square in Carlsbad, California, International Trade and Transportation Center in Kern County, California, and Sun City/Palm Springs.

R6-21

CONT'D

Mr. Kahn founded the firm of Robert Kahn and Associates in 1988, which was the predecessor to RKJK & Associates, Inc. in 1990. He has made presentations to the ITE and the California Public Works Conference. Mr. Kahn has published numerous articles on traffic impact assessment, traffic calming, striping and the status of Bicycle Sharing in the USA. He was awarded the Wayne T property award in 2011-2012. Mr. Kahn has been a mentor and advisor to the UCI Senior Civil Engineering Project (CE181) for the past several years. He provides students the opportunity to develop a real life transportation project for the program.

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RK engineering group, inc.

Robert Kahn, P.E., T.E. — Principal

Robert Kahn has been involved in numerous legal cases as an expert witness and providing legal assistance in the area of traffic and environmental engineering. This has included traffic/parking impact analysis, traffic/circulation/parking impacts of ROW takes, traffic engineering design review, traffic safety studies and noise/vibration impact assessments. A sampling of these projects include the following cases:

- Tustin Avenue/Rose Drive Grade Separation Impact to Del Cerro Mobile Estates, City of Placentia
- 9582 Chapman Avenue – ULI Shared Parking, City of Garden Grove
- Plantation Apartments Norwalk 12809 Kalnor Avenue I-5 Construction Noise Monitoring Assessment
- City of Huntington Beach vs. Alvarez, et al, Traffic Review of ROW taking
- Gene Autry Way Extension – Impacts to Anaheim Holiday Inn and Staybridge Suites Hotel, Anaheim
- UCSD Student Center Traffic and Parking Impact Review, City of San Diego
- Palma De La Reina Traffic Impact Analysis Review
- Newport Tech Center Traffic Study Review, Newport Beach
- City of Irvine Planning Area 18, 34 and 39 DEIR Traffic Impact Review, City of Irvine
- City of San Diego Big Box Ordinance, City of San Diego
- City of Yucaipa Big Box Ordinance, City of Yucaipa
- Electra Real Estates USA Mid Coast Corridor Transit Project Traffic/Circulation and Parking Impact Review, City of San Diego
- Rancho El Revino Specific Plan Traffic Impact Study Review
- President Hotel Santa Ana parking lot dispute
- Caceres vs. City of Fontana, represented City in an Intersection (Production at Santa Ana Ave.) Accident
- Corona vs. City of Fontana, represented City in an Intersection (Sierra Ave. and Summit Ave.) Accident
- Sunset and Gordon Mixed Use Site Traffic Review
- Baldwin Hills Crenshaw Plaza EIR and Traffic Study Review
- Saint Mary's University Wellness Pavilion EIR and Traffic Study Review
- 15 Degree South Residential Project Traffic Review
- Review of the OCTA Tustin Avenue Rose Drive Grade Separation Representing the Del Cerro Mobile Estates
- OCTA State College Blvd Grade Separation Representing the Fullerton Commerce Center and Fullerton Industrial Park

R6-21

CONT'D

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

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March 2, 2020

Mitchell M. Tsai
155 South El Molino Avenue
Suite 104
Pasadena, CA 91101

Subject: Comments on the Brea Mall Mixed-Use Project (SCH No. 2019080299)

Dear Mr. Tsai,

We have reviewed the January 2020 Draft Environmental Impact Report ("DEIR") for the Brea Mall Mixed Use Project ("Project") located in the City of Brea ("City"). The Project proposes demolition of a 161,990-SF Sears building, as well as the construction of 312 residential dwelling units totaling 382,994-SF, a 311,615-SF commercial building, and 1,678 parking spaces on the 17.5-acre Project site. R6-22

Our review concludes that the DEIR fails to adequately evaluate the Project's Air Quality, Health Risk, and Greenhouse Gas impacts. As a result, emissions and health risk impacts associated with construction and operation of the proposed Project are underestimated and inadequately addressed. An updated EIR should be prepared to adequately assess and mitigate the potential air quality and health risk impacts that the project may have on the surrounding environment.

Air Quality

Unsubstantiated Input Parameters Used to Estimate Project Emissions

The DEIR's air quality analysis relies on emissions calculated with CalEEMod.2016.3.2.[1] CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act (CEQA) requires that such changes be R6-23

[1] CAPCOA (November 2017) CalEEMod User's Guide, http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4.

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justified by substantial evidence.[2] Once all of the values are inputted into the model, the Project's construction and operational emissions are calculated, and "output files" are generated. These output files disclose to the reader what parameters were utilized in calculating the Project's air pollutant emissions and make known which default values were changed as well as provide justification for the values selected.[3]

R6-24

Review of the existing Project's air modeling demonstrates that the DEIR overestimates emissions associated with existing Project activities and underestimates emissions associated with proposed Project activities. As previously stated, the DEIR's air quality analysis relies on construction and operational air pollutant emissions calculated using CalEEMod. When we reviewed the CalEEMod output files for the existing Project, provided in Appendix B to the DEIR, we found that several of the values inputted into the model were not consistent with information disclosed in the DEIR. As a result, the existing Project's operational emissions may be overestimated, and the proposed Project's operational emissions may be underestimated. An updated EIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that operation of the existing Project may have on local and regional air quality.

R6-25

Inclusion of Unsubstantiated Land Uses in the Existing Model

Review of the CalEEMod output files for the existing Project demonstrates that the model includes two land uses that are not proposed or substantiated in the DEIR. As a result, emissions are overestimated.

R6-26

According to the DEIR, the existing land uses on the Project site include a 1,291,433-SF mall and 760,832-SF of parking (see excerpts below) (p. 1-12 & p. 3-24, Table ES-2 & Table 3-4).

[2] Ibid, p. 1, 9.
[3] Supra, fn 1, p. 11, 12 – 13. A key feature of the CalEEMod program is the "remarks" feature, where the user explains why a default setting was replaced by a "user defined" value. These remarks are included in the report.

2

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Table ES-2 Brea Mall Mixed Use Project Land Use Summary

Tenant	Existing Commercial Square Feet	Demolition Commercial Square Feet	New Construction Commercial Square Feet	Total Mall Commercial Square Feet
Major Department Stores				
Sears	161,990	-161,990	—	0
Macy's[1]	182,360	—	—	182,360
Nordstrom	176,540	—	—	176,540
JC Penney	135,800	—	—	135,800
Macy's Men[2] & Home	192,060	—	—	192,060
Total Major Department Stores	**848,750**	**-161,990**	**0**	**686,760**
Other Commercial				
Sporting Goods	—	—	50,019	50,019
Lifestyle Fitness Center	—	—	128,000	128,000
Level 1 Mall	224,522	—	123,053	347,575
Level 2 Mall	207,992	—	10,543	218,535
Total Other Commercial	**432,514**	**0**	**311,615**	**744,129**
Outlots[1]				
Cheesecake Factory Outlot	10,169	—	—	10,169
Total Mall	**1,291,433**	**-161,990**	**311,615**	**1,441,058**
Mixed Use Residential				
Medium Density Residential (7-story)	—	—	312 units	312 units
Residential Square Feet[3]	—	—	382,994	
Net Change from Existing	—	—	**312 units**	**149,625**

Notes:
[1] Macy's owns the buildings occupied by Red Lobster and Olive Garden; therefore, the commercial square footage for Macy's includes these restaurants. BJ's is not owned by Simon Properties or the retail anchors; therefore, the square footage for this outlot facility is not included in this table.
[2] Under separate ownership
[3] The residential building square footage is based on the gross square footage under the California Building Code.

Table 3-4 Brea Mall Surface and Structure Parking

Type of Parking	Spaces	Surface Lot Acreage	Structure Square Footage
Existing Brea Mall	6,376	26.64	760,832
Demolition	-1,345	12.00	0
New			
Brea Mall	1,139[1]	2.98	311,459
Residential-Only	539	0	208,160
Total	1,678	2.98	519,619
Total			
Brea Mall	6,160	17.62	1,072,291
Residential-Only	539	0	208,160
Total	**6,699**	**17.62**	**1,280,451**

[1] 149 surface spaces and 990 structure parking spaces.

R6-27

As you can see in the excerpts above, the existing land uses include a 1,291,433-SF mall and 760,832-SF of parking. However, review of the Project's CalEEMod output files demonstrates that the model also includes 1,274,565-SF of "Other Asphalt Surfaces" and 1,160,438.4-SF of "Parking Lot" (see excerpt below) (Appendix B, pp. 469, 276, 483, 494, 501, 508).

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	760.83	1000sqft	0.00	760,832.00	0
Other Asphalt Surfaces	29.26	Acre	29.26	1,274,565.60	0
Parking Lot	26.64	Acre	26.64	1,160,438.40	0
Regional Shopping Center	1,291.43	1000sqft	18.10	1,291,433.00	0

R6-28

As you can see in the excerpt above, 1,274,565-SF of "Other Asphalt Surfaces" and 1,160,438.4-SF of "Parking Lot" were also included in the model. This presents an issue, as the land use type and size features are used throughout CalEEMod to determine default variable and emission factors that go into

3

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the model's calculations.[4] The square footage of a land use is used for certain calculations such as determining the wall space to be painted (i.e., VOC emissions from architectural coatings) and volume that is heated or cooled (i.e., energy impacts). Thus, by including 2,435,004-SF of unsubstantiated land use in the existing land use models, the model overestimates the Project's existing operational emissions. This presents an issue, as these emissions are subtracted from the proposed Project's operational emissions, resulting in an underestimation of emissions. As a result, the model should not be relied upon to determine Project significance.

R6-28

CONT'D

Unsubstantiated Reduction in CO_2 Intensity Factor

Review of the Project's CalEEMod output files demonstrates that the CO_2 intensity factor was manually reduced from the default value of 702.44 to 504.44 lbs/MWhr within the model (see excerpt below) (Appendix B, pp. 140, 187, 234, 279, 289, 299, 315, 358, 400, 440, 448, 457, 470, 477, 484, 495, 502, 509).

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	CO2IntensityFactor	702.44	504.44

As you can see in the excerpt above, the CO_2 intensity factor was reduced by 198 lbs/MWhr in the model. As previously stated, CalEEMod requires that any non-default parameters inputted into CalEEMod must be justified with substantial evidence.[5] According to the "User Entered Comments & Non-Default Data" table, the justification provided for these changes is: "Southern California Edison Carbon Intensity Factors 2018" (Appendix B). Furthermore, regarding the CO_2 intensity factor, the "CalEEMod Inputs and Assumptions" states:

R6-29

> "Based on CO2e intensity factor of 507 pounds per megawatt hour, Southern California Edison. 2019, May. 2018 Sustainability Report. https://www.edison.com/content/dam/eix/docments/sustainability/eix-2018-" (Appendix B, p. B-55).

However, review of the source provided reveals that the link leads to a blank page. Thus, we cannot verify the reduction to the Project's CO_2 intensity factor. As a result, the model may underestimate emissions and should not be relied upon to determine Project significance.

Underestimated Land Use Sizes

According to the DEIR, the Project would include the construction of 312 dwelling units totaling 382,994-SF (see excerpt below) (p. 1-12, Table ES-2).

R6-30

[4] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 18.
[5] CalEEMod Model 2013.2.2 User's Guide, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/usersguideSept2016.pdf?sfvrsn=6, p. 2, p. 9

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Table ES-2 Brea Mall Mixed Use Project Land Use Summary

Tenant	Existing Commercial Square Feet	Demolition Commercial Square Feet	New Construction Commercial Square Feet	Total Mall Commercial Square Feet
Major Department Stores				
Sears	161,990	-161,990	—	0
Macy's[1]	182,360	—	—	182,360
Nordstrom	176,540	—	—	176,540
JC Penney	135,800	—	—	135,800
Macy's Men[2] & Home	192,060	—	—	192,060
Total Major Department Stores	**848,750**	**-161,990**	**0**	**686,760**
Other Commercial				
Sporting Goods	—	—	50,019	50,019
Lifestyle Fitness Center	—	—	128,000	128,000
Level 1 Mall	224,522	—	123,053	347,575
Level 2 Mall	207,992	—	10,543	218,535
Total Other Commercial	**432,514**	**0**	**311,615**	**744,129**
Outlots[1]				
Cheesecake Factory Outlot	10,169	—	—	10,169
Total Mall	**1,291,433**	**-161,990**	**311,615**	**1,441,058**
Mixed Use Residential				
Medium Density Residential (7-story)	—	—	312 units	312 units
Residential Square Feet[3]	—	—	382,994	
Net Change from Existing	—	—	**312 units**	**149,625**

Notes:
[1] Macy's owns the buildings occupied by Red Lobster and Olive Garden; therefore, the commercial square footage for Macy's includes these restaurants. BJ's is not owned by Simon Properties or the retail anchors; therefore, the square footage for this outlot facility is not included in this table.
[2] Under separate ownership
[3] The residential building square footage is based on the gross square footage under the California Building Code.

R6-30

CONT'D

However, review of the Project's CalEEMod output files demonstrates that only 380,947-SF of "Apartments Mid Rise" were included in the model (see excerpt below) (Appendix B, pp. 278, 288, 298).

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	312.00	Dwelling Unit	2.25	380,947.00	892

As you can see in the excerpt above, the model underestimates the size of the proposed residential land use by 2,047-SF. This presents an issue, as the land use type and size features are used throughout CalEEMod to determine default variable and emission factors that go into the model's calculations.[6] The square footage of a land use is used for certain calculations such as determining the wall space to be painted (i.e., VOC emissions from architectural coatings) and volume that is heated or cooled (i.e., energy impacts). By underestimating the size of the proposed residential land use, the model underestimates the Project's construction and operational emissions and should not be relied upon to determine Project significance.

Failure to Include All Demolition

Review of the Project's CalEEMod output files demonstrates that the model failed to include the total amount of demolition required for Project construction. As a result, the Project's construction emissions are underestimated.

R6-31

[6] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 18.

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According to the DEIR, the proposed Project will include the demolition of the 161,990-SF existing Sears building (see excerpt below) (p. 1-12, Table ES-2).

Table ES-2 Brea Mall Mixed Use Project Land Use Summary

Tenant	Existing Commercial Square Feet	Demolition Commercial Square Feet	New Construction Commercial Square Feet	Total Mall Commercial Square Feet
Major Department Stores				
Sears	161,990	-161,990	—	0
Macy's[1]	182,360	—	—	182,360
Nordstrom	176,540	—	—	176,540
JC Penney	135,800	—	—	135,800
Macy's Men[2] & Home	192,060	—	—	192,060
Total Major Department Stores	848,750	-161,990	0	686,760
Other Commercial				
Sporting Goods	—	—	50,019	50,019
Lifestyle Fitness Center	—	—	128,000	128,000
Level 1 Mall	224,522	—	123,053	347,575
Level 2 Mall	207,992	—	10,543	218,535
Total Other Commercial	432,514	0	311,615	744,129
Outlots[1]				
Cheesecake Factory Outlot	10,169	—	—	10,169
Total Mall	1,291,433	-161,990	311,615	1,441,058
Mixed Use Residential				
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Residential Square Feet[3]	—	—	382,994	
Net Change from Existing	—	—	**312 units**	**149,625**

Notes:
[1] Macy's owns the buildings occupied by Red Lobster and Olive Garden; therefore, the commercial square footage for Macy's includes these restaurants. BJ's is not owned by Simon Properties or the retail anchors; therefore, the square footage for this outlot facility is not included in this table.
[2] Under separate ownership
[3] The residential building square footage is based on the gross square footage under the California Building Code.

R6-31

CONT'D

As you can see in the excerpt above, the model should have included 161,990-SF of demolition. According to the CalEEMod User's Guide, "Haul trips are based on the amount of material that is demolished, imported or exported assuming a truck can handle 16 cubic yards of material."[7] Therefore, the air model calculates a default number of hauling trips based upon the amount of demolition material inputted into the model. If the correct value of 161,990 square feet of demolition had been inputted into the model, the default number of hauling trips for demolition would have been 737. However, review of the CalEEMod output files for Project construction demonstrates that the model calculated a default number of 158 hauling trips for demolition, which was then manually changed to zero (see excerpt below) (Appendix B, p. 140, 187, 234, 315, 358, 400).

Table Name	Column Name	Default Value	New Value
tblTripsAndVMT	HaulingTripNumber	158.00	0.00

As you can see in the excerpt above, the model calculated a default number of 158 demolition hauling trips, which was then manually changed to zero. This demonstrates that the model failed to account for the total amount of demolition required for Project construction. The total amount of demolition material is used by CalEEMod to determine emissions associated with this phase of construction. The three primary operations that generate dust emission during the demolition phase are mechanical or explosive dismemberment, site removal of debris, and on-site truck traffic on paved and unpaved road.[8]

R6-32

[7] http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14
[8] CalEEMod User Guide, Appendix A, p. 11, *available at:* http://www.caleemod.com/

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Therefore, by failing to account for the demolition of the existing structures, fugitive dust emissions, emissions from site removal, and exhaust emissions from hauling trucks traveling to and from the site are underestimated. As a result, we find that the model underestimates emissions and should not be relied upon to determine Project significance.

R6-32

CONT'D

Unsubstantiated Reductions in Hauling, Vendor, and Worker Trips

The CalEEMod model incorrectly includes artificially reduced numbers of hauling, vendor, and worker trips to estimate the Project's construction emissions. As a result, the Project's construction-related air pollutant emissions and associated impacts are underestimated and inadequately addressed in the DEIR.

Review of the Project's CalEEMod output files demonstrates that the model included several unsubstantiated changes to the Project's hauling, vendor, and worker trips (see excerpt below) (Appendix B, pp. 140, 187, 234, 315, 358, 400).

Table Name	Column Name	Default Value	New Value
tbTripsAndVMT	HaulingTripNumber	158.00	0.00
tbTripsAndVMT	HaulingTripNumber	2.00	0.00
tbTripsAndVMT	VendorTripNumber	0.00	4.00
tbTripsAndVMT	VendorTripNumber	216.00	0.00
tbTripsAndVMT	VendorTripNumber	216.00	0.00
tbTripsAndVMT	VendorTripNumber	216.00	0.00
tbTripsAndVMT	VendorTripNumber	0.00	4.00
tbTripsAndVMT	VendorTripNumber	0.00	4.00
tbTripsAndVMT	VendorTripNumber	0.00	4.00
tbTripsAndVMT	VendorTripNumber	216.00	0.00
tbTripsAndVMT	VendorTripNumber	216.00	0.00
tbTripsAndVMT	WorkerTripNumber	536.00	5.00
tbTripsAndVMT	WorkerTripNumber	536.00	23.00
tbTripsAndVMT	WorkerTripNumber	536.00	3.00
tbTripsAndVMT	WorkerTripNumber	8.00	343.00
tbTripsAndVMT	WorkerTripNumber	3.00	9.00
tbTripsAndVMT	WorkerTripNumber	33.00	27.00
tbTripsAndVMT	WorkerTripNumber	536.00	21.00
tbTripsAndVMT	WorkerTripNumber	536.00	13.00

R6-33

As the above excerpt demonstrates, several hauling, vendor, and worker trip numbers were manually altered within the model. As previously stated, CalEEMod requires that any non-default parameters inputted into CalEEMod must be justified with substantial evidence.[9] According to the "User Entered Comments & Non-Default Data" table, the justification provided for these changes is: "4 vt per water truck, worker trips for building construction provided by applicant, see assump file" (Appendix B, pp. 136, 183, 230, 310, 353, 395). However, review of the DEIR demonstrates that these changes were not

[9] CalEEMod Model 2013.2.2 User's Guide, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/usersguideSept2016.pdf?sfvrsn=6, p. 2, p. 9

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mentioned or substantiated whatsoever. As a result, we cannot verify these changes and the model should not be relied upon to determine Project significance, as it may underestimate emissions.

R6-33

CONT'D

Unsubstantiated Reductions in Architectural Coatings

Review of the Project's CalEEMod output files demonstrates that the architectural coating construction area as well as several of the area coating emission factors were manually reduced within the model. As a result, the Project's construction and operational emissions may be underestimated.

The Project's CalEEMod output files demonstrate that the architectural coating construction area was reduced from 60,426-SF to 28,431-SF, and the nonresidential exterior, nonresidential interior, and parking area coating emission factors were reduced to 0 grams per liter (g/L) (see excerpt below) (Appendix B, pp. 310, 353, 395).

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Parking	60,426.00	28,431.00
tblAreaMitigation	UseLowVOCPaintNonresidentialExterioVValue	100	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInterior Value	100	0
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	100	0

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As the above excerpt demonstrates, the architectural coating parking construction area, as well as several area coating emission factors were manually reduced within the model. CalEEMod requires that any non-default parameters inputted into CalEEMod must be justified with substantial evidence.[10] According to the "User Entered Comments & Non-Default Data" table, the justifications provided for these changes are: "see assump file, Mitigation Measure: 0 VOC paints for architectural coating" and "MM: 0 VOC paints for architectural coating" (Appendix B, pp. 310, 353, 395). Furthermore, according to PPP AIR-4:

> "Construction activities will be conducted in compliance with any applicable South Coast Air Quality Management District rules and regulations, including but not limited to the following:" … "Rule 1113, which limits the volatile organic compound content of architectural coatings" (Appendix O, pp. 4414, Table 2).

However, the DEIR fails to substantiate the reduction of the area coating emission factors to 0 g/L and the architectural coating construction area value of 28,431-SF. Furthermore, review of Rule 1113 demonstrates that a VOC content of 50 g/L is required, not 0 g/L as the model includes. Therefore, the change to the Project's architectural coating parking construction area, as well as several area coating emission factors, is unsubstantiated. This presents an issue, as these emission factors are used by CalEEMod to determine the amount of volatile organic compound (VOC) [11] evaporative emissions

[10] CalEEMod Model 2013.2.2 User's Guide, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/usersguideSept2016.pdf?sfvrsn=6, p. 2, p. 9

[11] Also referred to as reactive organic gas (ROG).

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resulting from the application of surface coatings.[12] Therefore, because the area coating emission factors were manually reduced to 0 g/L, the CalEEMod model estimates emissions assuming that the nonresidential interior, nonresidential exterior, and parking land uses would not emit any amount of VOCs. As a result, the air model underestimates emissions and should not be relied upon to determine Project significance.

R6-34

CONT'D

Failure to Evaluate Feasibility of Tier 4 Final Equipment

Review of the CalEEMod output files demonstrates that the model assumed that construction equipment would be equipped with Tier 4 Final engines (see excerpt below) (pp. 310-311, 353-354, 395-396).

R6-35

[12] "CalEEMod User's Guide Appendix A: Calculation Details for CalEEMod." CAPCOA, September 2016, *available at*: http://www.aqmd.gov/docs/default-source/caleemod/caleemod-appendixa.pdf, p. 16, p. 28

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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

R6-35

CONT'D

As you can see in the excerpt above, the model assumes that several pieces of construction equipment will be equipped with Tier 4 Final engines. Regarding Tier 4 Final mitigation, the DEIR states:

> "The construction contractor(s) shall, at minimum, use equipment that meets the United States Environmental Protection Agency's (EPA) Tier 4 (Final) emissions standards for offroad diesel-powered construction equipment with more than 50 horsepower" (p. 5.2-31).

However, the DEIR failed to evaluate the feasibility in obtaining Tier 4 Final equipment. Due to the limited amount of Tier 4 Final equipment available, the DEIR should have assessed the feasibility in obtaining equipment with Tier 4 engines (see excerpt below).[13]

[13] *Ibid*.

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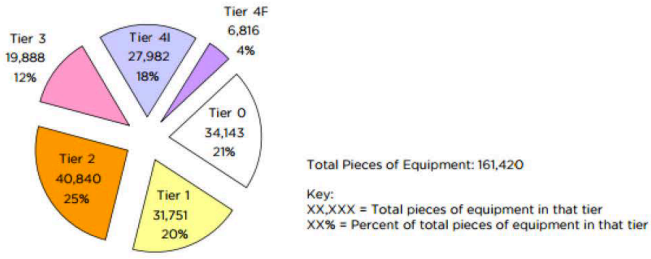
Figure 4: 2014 Statewide All Fleet Sizes (Pieces of Equipment)



R6-36

As demonstrated in the figure above, the Tier 4 Final equipment only account for 4% of all off-road equipment currently available in California. Thus, emissions are modeled assuming that the Project will be able to obtain Tier 4 Final equipment even though this equipment only accounts for 4% of available off-road equipment currently available in California. As a result, the model represents the best-case scenario even though obtaining this type of equipment may not be feasible. This is incorrect, as CEQA requires the most conservative analysis. Due to the limited availability of Tier 4 Final equipment, the DEIR should have evaluated the feasibility of obtaining Tier 4 Final equipment. As a result, construction emissions may be underestimated.

Unsubstantiated Changes to Title 24 Energy Use Values

Review of the Project's CalEEMod output files demonstrates that the model included several unsubstantiated changes to the Title-24 energy use values, and as a result, the Project's operational emissions may be underestimated.

According to the Project's CalEEMod output files, several of the Project's Title-24 Electricity Energy Intensity and Natural Gas Energy Intensity values were reduced (see excerpt below) (Appendix B, pp. 440, 448, 457).

R6-37

Table Name	Column Name	Default Value	New Value
tblEnergyUse	T24E	179.76	125.83
tblEnergyUse	T24E	3.92	3.40
tblEnergyUse	T24E	1.63	1.14
tblEnergyUse	T24E	2.93	3.55
tblEnergyUse	T24NG	5,911.46	4,137.70
tblEnergyUse	T24NG	14.04	9.80
tblEnergyUse	T24NG	0.95	0.96

As the above excerpt demonstrates, 3 of the Project's Title-24 Electricity Energy Intensity and 3 of the Project's Title-24 Natural Gas Energy Intensity values were reduced within the model. As previously stated, CalEEMod requires that any non-default parameters inputted into CalEEMod must be justified

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with substantial evidence.[14] According to the "User Entered Comments & Non-Default Data" table, the justification provided for these changes is: "see assumptions file for energy rate adjustment" (Appendix B, pp. 440, 448, 457). Regarding changes to energy use values, the DEIR states:

> "Buildings constructed after January 1, 2020 are required to meet the 2019 Building and Energy Efficiency Standards. The 2019 Standards are 30% more energy efficient for non-residential buildings and 7% more energy efficient for single family residential buildings than the 2016 Building and Energy Efficiency Standards" (Appendix B, p. B-61).

The DEIR goes on to state that "[m]ulti-family of 4 stories and higher are treated as non-residential for the Building and Energy Efficiency Standards" (Appendix B, p. B-61). However, the DEIR fails to provide a source for this claim, and as a result, the model's 30% reduction for the Project's residential Title-24 Electricity Energy Intensity values are unsubstantiated. Furthermore, the DEIR fails to address *energy intensity values* whatsoever. As a result, the model's reduction of the Title-24 Electricity *Energy Intensity value* in CalEEMod is unsubstantiated, and as a result, the air model cannot be relied upon to determine Project significance.

R6-37

CONT'D

Unsubstantiated Changes to Wastewater Treatment System Percentages

Review of the Project's CalEEMod output files demonstrate that the wastewater treatment system percentages were manually altered without sufficient justification (see excerpt below) (Appendix B, p. B-373, B-381, B-390, B-402, B-409, B-416, B-427, B-434, B-441).

Table Name	Column Name	Default Value	New Value
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00

R6-38

As you can see in the excerpt above, the Project's wastewater treatment system is changed to be 100% aerobic and 0% anaerobic in the model. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[15] According to the "CalEEMod Inputs and Assumptions," as well as the "User Entered Comments & Non-Default Data" table, the justification provided is that the model assumes 100% aerobic treatment (Appendix B, p. B-59, B-60, B-372, B-380, B-389, B-401, B-408, B-415, B-426, B-433, B-440) Furthermore, the DEIR states:

> "The City's wastewater collection system conveys untreated wastewater to Orange County Sanitation District's trunk sewer system. Sewer flows ultimately reach the District's Wastewater Treatment Plant #1 in Fountain Valley" (p. 3-25).

[14] CalEEMod Model 2013.2.2 User's Guide, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/usersguideSept2016.pdf?sfvrsn=6, p. 2, p. 9
[15] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9

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However, review of the Facility's website demonstrates that anaerobic bacteria digest sludge during the primary wastewater treatment process.[16] According to the CalEEMod User's Guide, each type of wastewater treatment system is associated with different GHG emission factors.[17] Thus, artificially altering the wastewater treatment system percentages may result in an incorrect estimation of the Project's GHG emissions. As a result, the model should be relied upon to determine Project significance.

R6-38 CONT'D

Unsubstantiated Application of Construction Mitigation Measures

Review of the Project's CalEEMod output files reveals that the model includes four unsubstantiated construction mitigation measures. As a result, the model may underestimate the Project's construction-related emissions.

The following construction mitigation measures were included in the model: "Replace Ground Cover," "Water Exposed Area," "Reduce Vehicle Speed on Unpaved Roads," and "Clean Paved Roads" (see excerpt below) (Appendix B, p. B-77, B-124 – B-125, B-172, B-213, B-223, B-233, B-252, B-295 – B-296, B-338).

R6-39

3.1 Mitigation Measures Construction

Replace Ground Cover
Water Exposed Area
Reduce Vehicle Speed on Unpaved Roads
Clean Paved Roads

As you can see in the excerpt above, the model includes four construction mitigation measures. Specifically, the model includes a 9% reduction in PM, as well as a 15 miles per hour ("MPH) vehicle speed on unpaved roads (see excerpt below) (Appendix B, p. B-68, B-115, B-162, B-210, B-220, B-230, B-242, B-285, B-327).

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[18] According to the "CalEEMod Inputs and Assumptions," the justification provided for these changes is SCAQMD Rule 1186 (Appendix B, p. B-55). Furthermore, PPP AIR-4 states that "Construction activities will be conducted in compliance with any applicable South Coast Air Quality Management District rules and regulations, including but not limited to the following: Rule 403, Fugitive Dust" (Appendix O, p. O-13, Table 2). However, according to SCAQMD Rule 1186(a), "The purpose of this rule is to reduce the amount of particulate matter entrained in the ambient air as a result of vehicular travel on paved and unpaved **public roads**, and at **livestock operations**" (emphasis added). Thus, Rule 1186

R6-40

[16] "What We Do." Orange County Sanitation District, *available at:* https://www.ocsd.com/Home/ShowDocument?id=29045, p. 6.
[17] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 45
[18] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9

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does not apply to the proposed Project, as it does not contain public roads or livestock operations. Furthermore, SCAQMD Rule 403 does not substantiate the 9% reduction, or the implementation of these measures in the model. As a result, we are unable to verify that these mitigation measure will be implemented, monitored, and enforced, and as a result, the model may underestimate emissions.

R6-40 CONT'D

Unsubstantiated Application of Water-Related Operational Mitigation Measures

Review of the Project's CalEEMod output files reveals that the model includes unsubstantiated water-related operational mitigation measures, and as a result, the model may underestimate the Project's water-related operational emissions.

The following water-related operational mitigation measures were included in the model: "Install Low Flow Bathroom Faucet," "Install Low Flow Kitchen Faucet," "Install Low Flow Toilet," and "Install Low Flow Shower" (see excerpt below) (Appendix B, p. B-378, B-387, B-396 – B-397).

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet
Install Low Flow Kitchen Faucet
Install Low Flow Toilet
Install Low Flow Shower
Use Water Efficient Irrigation System

R6-41

As you can see in the excerpt above, the model includes five unsubstantiated water-related operational mitigation measures. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[19] According to PPP E-5 (PPP GHG-5), "New buildings are required to adhere to the California Green Buildings Standards Code and Water Efficient Landscape Ordinance requirements to increase water efficiency and reduce urban per capita water demand" (Appendix O, p. O-16, Table 2). However, while this verifies the implementation of "Use Water Efficient Irrigation System in the model, this fails to verify that low flow bathroom faucets, low flow kitchen faucets, low flow toilets, and low flow showers. As a result, the implementation of these measures is unsubstantiated, and the model may underestimate emissions.

Failure to Implement All Feasible Mitigation to Reduce Emissions

The DEIR determines that the proposed Project's construction NO_x would result in a potentially significant air quality impact before mitigation (p. 5.2-24). However, after the implementation of Mitigation Measure AQ-1, which states that all construction equipment would be equipped with Tier 4 Final engines, the DEIR concludes that the Project's construction NO_x would be reduced to a less than significant level (see excerpt below) (p. 3.2-32, Table 5.2-14).

R6-42

[19] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9

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Table 5.2-14 Maximum Daily Regional Construction Emissions with Mitigation

Construction Phase	Pollutants (lb/day)[1,2] VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Year 2020 Maximum Daily Emissions	5	79	117	<1	10	2
Year 2021 Maximum Daily Emissions	3	11	93	<1	6	1
Year 2022 Maximum Daily Emissions	56	1	14	<1	1	<1
Maximum Daily Emissions	56	79	117	<1	10	2
South Coast AQMD Regional Construction Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Threshold?	No	No	No	No	No	No

Source: CalEEMod Version 2016.3.2.
Emissions totals may not equal 100 percent due to rounding.
[1] Based on the preliminary information provided by the Applicant. Where specific information regarding project-related construction activities was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by South Coast AQMD of construction equipment.
[2] Includes implementation of fugitive dust control measures required by South Coast AQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186–compliant sweepers.

However, this is incorrect. As discussed above, the DEIR fails to evaluate the feasibility of obtaining Tier 4 Final construction equipment, and as a result, we cannot verify MM AQ-1. Thus, the DEIR fails to demonstrate that the Project's construction NO_x would be reduced to a less than significant level. This presents an issue, as according to CEQA Guidelines § 15096(g)(2), R6-42 CONT'D

> "When an 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."

As you can see, an impact can only be labeled as significant and unavoidable after all available, feasible mitigation has been considered.[20] However, the DEIR fails to consider and implement all feasible mitigation. Additional mitigation measures exist that should be identified and incorporated, such as those suggested in the section of this letter titled "Feasible Mitigation Measures Available to Reduce Construction Emissions,"[21] in order to reduce the Project's air quality impacts to the maximum extent possible. Until all feasible mitigation is considered and incorporated into the Project's design, the Project's NO_x emissions should not be considered significant and unavoidable.

Diesel Particulate Matter Health Risk Emissions Inadequately Evaluated

The DEIR determines that the proposed Project would have a less than significant health risk impact without conducting a quantitative construction or operational health risk assessment ("HRA") to nearby, existing receptors (p. 5.2-29). R6-43

The DEIR fails to conduct a quantified HRA for Project construction and instead, relies upon a Localized Significance Threshold ("LST") analysis, which found that Project construction emissions would not

[20] "Final Draft Guidance for Assessing and Mitigating Air Quality Impacts." SVJUAPCD, February 2015, *available at:* http://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF, p. 115.
[21] See section titled "Feasible Mitigation Measures Available to Reduce Construction Emissions" on p. 22 of this comment letter. These measures would effectively reduce construction-related NO_x emissions.

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exceed the SCAQMD LSTs. Specifically, regarding construction-related health risk impacts, the DEIR states,

> "Based on guidance from South Coast AQMD, construction risk is extrapolated based on the LST analysis. As described above, construction activities would not exceed the screening-level construction LSTs. For the reasons stated above, it is anticipated that construction emissions would not pose a threat to onsite and offsite receptors, and project-related construction health impacts would be less than significant" (p. 5.2-29).

Regarding the Project's operational health risk impacts, the DEIR attempts to justify its significance determination by stating,

> "While operation of the proposed project could result in the use of standard onsite mechanical equipment such as heating, ventilation, and air conditioning units in addition to occasional use of landscaping equipment for project area maintenance, air pollutant emissions generated would be small. Therefore, net localized air quality impacts from project-related operations would be less than significant." (p. 5.2-29)

R6-43

CONT'D

The excerpts above demonstrate that the DEIR's evaluation of the Project's health risk impact fails to include a quantified HRA. The DEIR's failure to quantify the health risk posed to nearby sensitive receptors from exposure to toxic air contaminant (TAC) emissions released during Project activities is incorrect for several reasons.

First, the use of the LST method to determine the Projects health risk impacts on nearby, existing sensitive receptors is incorrect. While the LST method assesses the impact of pollutants at a local level, it only evaluates impacts from criteria air pollutants. According to the Final Localized Significance Threshold Methodology document prepared by the SCAQMD, the LST analysis is only applicable to NO_x, CO, PM_{10}, and $PM_{2.5}$ emissions, which are collectively referred to as criteria air pollutants.[22] Because the LST method can only be applied to criteria air pollutants, this method cannot be used to determine whether emissions from DPM, a known human carcinogen, will result in a significant health risk impact to nearby sensitive receptors. As a result, health impacts from exposure to toxic air contaminants (TACs), such as diesel particulate matter (DPM), were not analyzed, thus leaving a gap within the DEIR's analysis

R6-44

Second, the omission of a quantified HRA is inconsistent with the most recent guidance published by the Office of Environmental Health Hazard Assessment (OEHHA), the organization responsible for providing guidance on conducting HRAs in California. In February of 2015, OEHHA released its most recent *Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments*, as cited in the DEIR (p. 5.2-29).[23] This guidance document describes the types of projects that warrant the preparation

R6-45

[22] "Final Localized Significance Threshold Methodology." SCAQMD, Revised July 2008, *available at:* http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf.

[23] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/hotspots2015.html

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of an HRA. Construction of the Project will produce emissions of DPM, a human carcinogen, through the exhaust stacks of construction equipment over a construction period of approximately 25-months (p. 5.2-29). The OEHHA document recommends that all short-term projects lasting at least two months be evaluated for cancer risks to nearby sensitive receptors.[24] Therefore, per OEHHA guidelines, we recommend that health risk impacts from Project construction be evaluated by an updated DEIR. Furthermore, once construction of the Project is complete, the Project will operate for a long period of time. As previously stated, Project operation will generate a net increase of approximately 4,140 daily vehicle trips, which will generate additional exhaust emissions and continue to expose nearby sensitive receptors to DPM emissions (p. 5.12-30). The OEHHA document recommends that exposure from projects lasting more than 6 months be evaluated for the duration of the project, and recommends that an exposure duration of 30 years be used to estimate individual cancer risk for the maximally exposed individual resident ("MEIR").[25] Even though we were not provided with the expected lifetime of the Project, we can reasonably assume that the Project will operate for at least 30 years, if not more. Therefore, we recommend that health risk impacts from Project operation also be evaluated in an updated DEIR, as a 30-year exposure duration vastly exceeds the 2-month and 6-month requirements set forth by OEHHA. These recommendations reflect the most recent health risk policy, as referenced by the DEIR, and as such, an updated assessment of health risks to nearby sensitive receptors from Project construction and operation should be included in a revised CEQA evaluation for the Project.

R6-45

CONT'D

Third, by claiming a less than significant impact without conducting a quantified HRA to nearby, existing sensitive receptors as a result of Project construction, the DEIR fails to compare the excess health risk to the SCAQMD's specific numeric threshold of 10 in one million. Thus, the DEIR cannot conclude less than significant health risk impacts resulting from Project construction without quantifying emissions to compare to the proper threshold.

R6-46

Screening-Level Assessment Indicates Significant Impact

In an effort to demonstrate the potential risk posed by Project construction and all Project operation to nearby sensitive receptors, we prepared a simple screening-level HRA. The results of our assessment, as described below, provide substantial evidence that the Project's construction and operational DPM emissions may result in a potentially significant health risk impact not previously identified by the DEIR.

R6-47

In order to conduct our screening level risk assessment, we relied upon AERSCREEN, which is a screening level air quality dispersion model.[26] The model replaced SCREEN3, and AERSCREEN is included in the OEHHA[27] and the California Air Pollution Control Officers Associated (CAPCOA)[28] guidance as the

[24] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf, p. 8-18
[25] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf, p. 8-6, 8-15
[26] "AERSCREEN Released as the EPA Recommended Screening Model," USEPA, April 11, 2011, *available at:* http://www.epa.gov/ttn/scram/guidance/clarification/20110411_AERSCREEN_Release_Memo.pdf
[27] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf
[28] "Health Risk Assessments for Proposed Land Use Projects," CAPCOA, July 2009, *available at:* http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf

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appropriate air dispersion model for Level 2 health risk screening assessments ("HRSAs"). A Level 2 HRSA utilizes a limited amount of site-specific information to generate maximum reasonable downwind concentrations of air contaminants to which nearby sensitive receptors may be exposed. If an unacceptable air quality hazard is determined to be possible using AERSCREEN, a more refined modeling approach is required prior to approval of the Project.

We prepared a preliminary HRA of the Project's construction and operational health-related impact to residential sensitive receptors using the annual PM_{10} exhaust estimates from the DEIR's underestimated CalEEMod model. According to the DEIR, the closest sensitive receptor is located approximately 550 feet, or roughly 167 meters west of the Project site (p. 5.2-16). Consistent with recommendations set forth by OEHHA, we assumed exposure begins during the third trimester stage of life. The Project's construction CalEEMod output files indicate that construction activities will generate approximately 130 pounds of diesel particulate matter (DPM) over the 805-day construction period. The AERSCREEN model relies on a continuous average emission rate to simulate maximum downward concentrations from point, area, and volume emission sources. To account for the variability in equipment usage and truck trips over Project construction, we calculated an average DPM emission rate by the following equation: R6-47 CONT'D

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{130.4\ lbs}{805\ days} \times \frac{453.6\ grams}{lbs} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = \mathbf{0.00085}\boldsymbol{g/s}$$

Using this equation, we estimated a construction emission rate of 0.00085 grams per second (g/s). Subtracting the 805-day construction duration from the total residential duration of 30 years, we assumed that after Project construction, the sensitive receptor would be exposed to the Project's operational DPM for an additional 27.8 years, approximately. The Project's operational CalEEMod emissions, calculated by subtracting the existing emissions from the proposed Project, indicate that operational activities will generate approximately 815 pounds of DPM per year throughout operation. Applying the same equation used to estimate the construction DPM rate, we estimated the following emission rate for Project operation:

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{815.2\ lbs}{365\ days} \times \frac{453.6\ grams}{lbs} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = \mathbf{0.01173}\ \boldsymbol{g/s}$$

Using this equation, we estimated an operational emission rate of 0.01173 g/s. Construction and operational activity was simulated as a 17.5-acre rectangular area source in AERSCREEN with dimensions of 266 meters by 266 meters. A release height of three meters was selected to represent the height of exhaust stacks on operational equipment and other heavy-duty vehicles, and an initial vertical dimension of one and a half meters was used to simulate instantaneous plume dispersion upon release. An urban meteorological setting was selected with model-default inputs for wind speed and direction distribution. R6-48

The AERSCREEN model generates maximum reasonable estimates of single-hour DPM concentrations from the Project site. EPA guidance suggests that in screening procedures, the annualized average

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concentration of an air pollutant be estimated by multiplying the single-hour concentration by 10%.[29] As previously stated, there are residential receptors located approximately 165 meters from the Project boundary. The single-hour concentration estimated by AERSCREEN for Project construction is approximately 0.5412 µg/m^3 DPM at approximately 175 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.05412 µg/m^3 for Project construction at the nearest sensitive receptor. For Project operation, the single-hour concentration estimated by AERSCREEN is 7.465 µg/m^3 DPM at approximately 175 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.7465 µg/m^3 for Project operation at the nearest sensitive receptor.

R6-48

CONT'D

We calculated the excess cancer risk to the closest sensitive receptor using applicable HRA methodologies prescribed by OEHHA, as referenced by the DEIR (p. 5.2-29). Consistent with the construction schedule included in the DEIR, the annualized average concentration for construction was used for the entire third trimester of pregnancy (0.25 years) and the first 1.95 years of the infantile stage of life (0 – 2 years). The annualized average concentration for operation was used for the remainder of the 30-year exposure period, which makes up the remainder of the infantile stage of life (0 – 2 years), child stages of life (2 – 16 years) and adult stages of life (16 – 30 years). Consistent with OEHHA (as referred to by the DEIR)[30], SCAQMD, BAAQMD, and SJVAPCD guidance, we used Age Sensitivity Factors (ASFs) to account for the heightened susceptibility of young children to the carcinogenic toxicity of air pollution.[31, 32, 33, 34] This guidance recommends that the quantified cancer risk should be multiplied by a factor of ten during the third trimester of pregnancy and during the first two years of life (infant) as well as multiplied by a factor of three during the child stage of life (2 to 16 years). Furthermore, in accordance with guidance set forth by OEHHA, we used the 95th percentile breathing rates for infants.[35]

R6-49

[29] "Screening Procedures for Estimating the Air Quality Impact of Stationary Sources Revised." EPA, 1992, *available at*: http://www.epa.gov/ttn/scram/guidance/guide/EPA-454R-92-019_OCR.pdf; *see also* "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf p. 4-36.

[30] "The Office of Environmental Health Hazards Assessment issued updated guidance for the preparation of health risk assessments in March 2015 (OEHHA 2015)" (p. 5.2-29).

[31] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.

[32] "Draft Environmental Impact Report (DEIR) for the Proposed The Exchange (SCH No. 2018071058)." SCAQMD, March 2019, *available at:* http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/march/RVC190115-03.pdf?sfvrsn=8, p. 4.

[33] "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2017, *available at:* http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, p. 56; see also "Recommended Methods for Screening and Modeling Local Risks and Hazards." BAAQMD, May 2011, *available at:* http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/BAAQMD%20Modeling%20Approach.ashx, p. 65, 86.

[34] "Update to District's Risk Management Policy to Address OEHHA's Revised Risk Assessment Guidance Document." SJVAPCD, May 2015, *available at:* https://www.valleyair.org/busind/pto/staff-report-5-28-15.pdf, p. 8, 20, 24.

[35] "Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics 'Hot Spots' Information and Assessment Act," June 5, 2015, *available at:* http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab2588-risk-assessment-guidelines.pdf?sfvrsn=6, p. 19.

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Finally, according to SCAQMD guidance, we used a Fraction of Time At Home (FAH) Value of 1 for the 3rd trimester and infant receptors.[36] We used a cancer potency factor of 1.1 $(mg/kg\text{-}day)^{-1}$ and an averaging time of 25,550 days. The results of our calculations are shown below.

The Closest Exposed Individual at an Existing Residential Receptor

Activity	Duration (years)	Concentration (ug/m3)	Breathing Rate (L/kg-day)	Cancer Risk without ASFs*	ASF	Cancer Risk with ASFs*
Construction	0.25	0.05412	361	7.4E-08	10	7.4E-07
3rd Trimester Duration	***0.25***			***7.4E-08***	***3rd Trimester Exposure***	***7.4E-07***
Construction	1.95	0.05412	1090	1.7E-06	10	1.7E-05
Operation	0.05	0.7465	1090	6.1E-07	10	6.1E-06
Infant Exposure Duration	***2.00***			***2.3E-06***	***Infant Exposure***	***2.3E-05***
Operation	14.00	0.74655	572	9.0E-05	3	2.7E-04
Child Exposure Duration	***14.00***			***9.0E-05***	***Child Exposure***	***2.7E-04***
Operation	14.00	0.74655	261	3.0E-05	1	3.0E-05
Adult Exposure Duration	***14.00***			***3.0E-05***	***Adult Exposure***	***3.0E-05***
Lifetime Exposure Duration	**30.00**			**1.2E-04**	**Lifetime Exposure**	**3.2E-04**

R6-50

The excess cancer risk posed to adults, children, infants, and during the third trimester of pregnancy at the closest receptor, located approximately 175 meters away, over the course of Project construction and operation, utilizing age sensitivity factors, are approximately 30, 270, 23, and 0.74 in one million, respectively. The excess cancer risk over the course of a residential lifetime (30 years) at the closest receptor, with age sensitivity factors, is approximately 320 in one million. The infant, child, and lifetime cancer risks, using age sensitivity factors, all exceed the SCAQMD threshold of 10 in one million, thus resulting in a potentially significant impact not previously addressed or identified by the DEIR. Results without age sensitivity factors are presented in the table above, although we **do not** recommend utilizing these values for health risk analysis, as they are less conservative and health-protective according to the most recent guidance. Regardless, the excess cancer risk over the course of a residential lifetime (30 years) at the closest receptor, without age sensitivity factors, is approximately

"Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf

[36] "Risk Assessment Procedures for Rules 1401, 1401.1, and 212." SCAQMD, August 2017, *available at:* http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1401/riskassessmentprocedures_2017_080717.pdf, p. 7.

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120 in one million. Thus, the Project may result in a significant health risk impact regardless of the use of age sensitivity factors.

An agency must include an analysis of health risks that connects the Project's air emissions with the health risk posed by those emissions. Our analysis represents a screening-level HRA, which is known to be conservative and tends to err on the side of health protection. The purpose of the screening-level construction HRA shown above is to demonstrate the link between the proposed Project's emissions and the potential health risk. Our screening-level HRA demonstrates that construction of the Project could result in a potentially significant health risk impact, when correct exposure assumptions and up-to-date, applicable guidance are used. Therefore, since our screening-level construction HRA indicates a potentially significant impact, an updated CEQA analysis should include a reasonable effort to connect the Project's air quality emissions and the potential health risks posed to nearby receptors. Thus, an updated CEQA analysis should include a quantified air pollution model as well as an updated, quantified refined health risk assessment which adequately and accurately evaluates health risk impacts associated with both Project construction and operation.

R6-50

CONT'D

Greenhouse Gas

Failure to Adequately Evaluate Greenhouse Gas Impacts

The DEIR concludes that the Project's emissions would not exceed the SCAQMD's mixed-use bright line threshold of 3,000 MT CO_2e/year (see excerpt below) (p. 5.5-23, Table 5.5-6).

Table 5.5-6 Project-Related GHG Emissions

Source	Existing Brea Mall $MTCO_2e$	Proposed Brea Mall $MTCO_2e$	Percent of Proposed Brea Mall Total Emission	Net Change (Proposed Project) $MTCO_2e$
Area	<1	5	<1%	5
Energy[1]	5,551	5,601	11%	49
Mobile[2]	44,027	45,863	86%	1,836
Solid Waste	682	1,129	2%	447
Water	351	367	1%	17
30-Year Amortized Construction[3]	NA	86	<1%	89
Total Emissions	**50,611**	**53,055**	**100%**	**2,444**
South Coast AQMD Bright Line Threshold	NA	NA	NA	3,000 $MTCO_2e$
Exceeds South Coast AQMD Bright Line Threshold	NA	NA	NA	No

Sources: CalEEMod Version 2016.3.2.
Note: NA: not applicable
[1] Existing conditions for energy uses historic rates based on CalEEMod Defaults. For project buildout conditions, the default electricity and natural gas rate in CalEEMod was adjusted to reflect 'blended' energy efficiency associated with the existing Brea Mall that would remain (using historic rates in CalEEMod) and new structures that would be constructed to achieve the 2019 Building and Energy Efficiency Standards (see Appendix B).
[2] Transportation emissions are based on trip generation data provided by LLG. Assumed VMT and vehicle fleet mix based on CalEEMod default rates.
[3] Construction emissions/sequestration are amortized over a 30-year period.

R6-51

As you can see in the excerpt above, the DEIR utilizes emissions calculated in the CalEEMod model to compare to the SCAQMD mixed-use bright line threshold of 3,000 MT CO_2e/year. The DEIR then states, "As shown in the table, GHG emissions from the proposed project, as compared to existing conditions, would not exceed South Coast AQMD's bright-line significance threshold. As a result, GHG emissions associated with the project are considered less than significant" (p. 5.5-23). However, as previously stated, the DEIR's CalEEMod model is incorrect and unsubstantiated. This is incorrect, as the GHG

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analysis included the DEIR relies on emissions that are underestimated. As a result, an updated DEIR should be conducted to include an updated GHG analysis to accurately reflect Project-specific GHG emissions. R6-51 CONT'D

Feasible Mitigation Measures Available to Reduce Construction Emissions

Our analysis demonstrates that, when Project activities are modeled correctly, construction emissions would result in potentially significant impacts. Therefore, additional mitigation measures must be identified and incorporated in a DEIR to reduce these emissions to a less than significant level.

Additional mitigation measures can be found in CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures,* which attempt to reduce GHG levels, as well as reduce criteria air pollutants such as particulate matter and NO_x.[37] DPM and NO_x are a byproduct of diesel fuel combustion and are emitted by on-road vehicles and by off-road construction equipment. Mitigation for criteria pollutant emissions should include consideration of the following measures in an effort to reduce construction emissions.[38] R6-52

Require Implementation of Diesel Control Measures

The Northeast Diesel Collaborative (NEDC) is a regionally coordinated initiative to reduce diesel emissions, improve public health, and promote clean diesel technology. The NEDC recommends that contracts for all construction projects require the following diesel control measures: [39]

- All diesel generators on site for more than 10 total days must be equipped with emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85 percent.
- All diesel vehicles, construction equipment, and generators on site shall be fueled with ultra-low sulfur diesel fuel (ULSD) or a biodiesel blend[40] approved by the original engine manufacturer with sulfur content of 15 parts per million (ppm) or less.

Repower or Replace Older Construction Equipment Engines

The NEDC recognizes that availability of equipment that meets the EPA's newer standards is limited.[41] Due to this limitation, the NEDC proposes actions that can be taken to reduce emissions from existing equipment in the *Best Practices for Clean Diesel Construction* report.[42] These actions include but are not limited to: R6-53

[37] http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf
[38] For measures to reduce operational DPM emissions, see section titled "Additional Feasible Mitigation Measures Available to Reduce Operational Emissions" on p. 25 of this letter. These measures would effectively reduce operational VOC and NOx emissions, DPM emissions, as well as GHG emissions.
[39] Diesel Emission Controls in Construction Projects, *available at*:http://www2.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf
[40] Biodiesel lends are only to be used in conjunction with the technologies which have been verified for use with biodiesel blends and are subject to the following requirements: http://www.arb.ca.gov/diesel/verdev/reg/biodieselcompliance.pdf
[41] http://northeastdiesel.org/pdf/BestPractices4CleanDieselConstructionAug2012.pdf
[42] http://northeastdiesel.org/pdf/BestPractices4CleanDieselConstructionAug2012.pdf

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- Repowering equipment (i.e. replacing older engines with newer, cleaner engines and leaving the body of the equipment intact).

Engine repower may be a cost-effective emissions reduction strategy when a vehicle or machine has a long useful life and the cost of the engine does not approach the cost of the entire vehicle or machine. Examples of good potential replacement candidates include marine vessels, locomotives, and large construction machines.[43] Older diesel vehicles or machines can be repowered with newer diesel engines or in some cases with engines that operate on alternative fuels. The original engine is taken out of service and a new engine with reduced emission characteristics is installed. Significant emission reductions can be achieved, depending on the newer engine and the vehicle or machine's ability to accept a more modern engine and emission control system. It should be noted, however, that newer engines or higher tier engines are not necessarily cleaner engines, so it is important that the Project Applicant check the actual emission standard level of the current (existing) and new engines to ensure the repower product is reducing emissions for DPM.[44]

R6-53 CONT'D

- Replacement of older equipment with equipment meeting the latest emission standards.

Engine replacement can include substituting a cleaner highway engine for a nonroad engine. Diesel equipment may also be replaced with other technologies or fuels. Examples include hybrid switcher locomotives, electric cranes, LNG, CNG, LPG or propane yard tractors, forklifts or loaders. Replacements using natural gas may require changes to fueling infrastructure.[45] Replacements often require some re-engineering work due to differences in size and configuration. Typically, there are benefits in fuel efficiency, reliability, warranty, and maintenance costs.[46]

R6-54

Install Retrofit Devices on Existing Construction Equipment

PM emissions from alternatively-fueled construction equipment can be further reduced by installing retrofit devices on existing and/or new equipment. The most common retrofit technologies are retrofit devices for engine exhaust after-treatment. These devices are installed in the exhaust system to reduce emissions and should not impact engine or vehicle operation. [47] It should be noted that actual emissions reductions and costs will depend on specific manufacturers, technologies and applications.

R6-55

Use Electric and Hybrid Construction Equipment

CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures*[48] report also proposes the use of electric and/or hybrid construction equipment to mitigate DPM emissions. When construction equipment is

R6-56

[43] Repair, Rebuild, and Repower, EPA, *available at*:https://www.epa.gov/verified-diesel-tech/learn-about-verified-technologies-clean-diesel#repair
[44] Diesel Emissions Reduction Program (DERA): Technologies, Fleets and Projects Information, *available at*:http://www2.epa.gov/sites/production/files/2015-09/documents/420p11001.pdf
[45] Alternative Fuel Conversion, EPA, *available at:* https://www3.epa.gov/otaq/consumer/fuels/altfuels/altfuels.htm#fact
[46] Cleaner Fuels, EPA, *available at*:https://www.epa.gov/verified-diesel-tech/learn-about-verified-technologies-clean-diesel#cleaner
[47] Retrofit Technologies, EPA, *available at*:https://www.epa.gov/verified-diesel-tech/learn-about-verified-technologies-clean-diesel#retrofit
[48]http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf

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powered by grid electricity rather than fossil fuel, direct emissions from fuel combustion are replaced with indirect emissions associated with the electricity used to power the equipment. Furthermore, when construction equipment is powered by hybrid-electric drives, emissions from fuel combustion are also greatly reduced. Electric construction equipment is available commercially from companies such as Peterson Pacific Corporation,[49] which specialize in the mechanical processing equipment like grinders and shredders. Construction equipment powered by hybrid-electric drives is also commercially available from companies such as Caterpillar.[50] For example, Caterpillar reports that during an 8-hour shift, its D7E hybrid dozer burns 19.5 percent fewer gallons of fuel than a conventional dozer while achieving a 10.3 percent increase in productivity. The D7E model burns 6.2 gallons per hour compared to a conventional dozer which burns 7.7 gallons per hour.[51] Fuel usage and savings are dependent on the make and model of the construction equipment used. The Project Applicant should calculate project-specific savings and provide manufacturer specifications indicating fuel burned per hour.

R6-56

CONT'D

Implement a Construction Vehicle Inventory Tracking System

CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures*[52] report recommends that the Project Applicant provide a detailed plan that discusses a construction vehicle inventory tracking system to ensure compliances with construction mitigation measures. The system should include strategies such as requiring engine run time meters on equipment, documenting the serial number, horsepower, manufacture age, fuel, etc. of all onsite equipment and daily logging of the operating hours of the equipment. Specifically, for each on-road construction vehicle, nonroad construction equipment, or generator, the contractor should submit to the developer's representative a report prior to bringing said equipment on site that includes:[53]

- Equipment type, equipment manufacturer, equipment serial number, engine manufacturer, engine model year, engine certification (Tier rating), horsepower, and engine serial number.
- The type of emission control technology installed, serial number, make, model, manufacturer, and EPA/CARB verification number/level.
- The Certification Statement[54] signed and printed on the contractor's letterhead.

R6-57

Furthermore, the contractor should submit to the developer's representative a monthly report that, for each on-road construction vehicle, nonroad construction equipment, or generator onsite, includes: [55]

[49] Peterson Electric Grinders Brochure, *available at*:http://www.petersoncorp.com/wp-content/uploads/peterson_electric_grinders1.pdf
[50] Electric Power Products, *available at*:http://www.cat.com/en_US/products/new/power-systems/electric-power-generation.html
[51] http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf
[52] http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf
[53] Diesel Emission Controls in Construction Projects, *available at*:http://www2.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf
[54] Diesel Emission Controls in Construction Projects, *available at*:http://www2.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf The NEDC Model Certification Statement can be found in Appendix A.
[55] Diesel Emission Controls in Construction Projects, *available at*:http://www2.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf

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- Hour-meter readings on arrival on-site, the first and last day of every month, and on off-site date.
- Any problems with the equipment or emission controls.
- Certified copies of fuel deliveries for the time period that identify:
  - Source of supply
  - Quantity of fuel
  - Quality of fuel, including sulfur content (percent by weight)

R6-57 CONT'D

In addition to these measures, we also recommend that the Project implement the following mitigation measures, called "Enhanced Exhaust Control Practices,"[56] that are recommended by the Sacramento Metropolitan Air Quality Management District (SMAQMD):

1. The project representative shall submit to the lead agency a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used an aggregate of 40 or more hours during any portion of the construction project.
   - The inventory shall include the horsepower rating, engine model year, and projected hours of use for each piece of equipment.
   - The project representative shall provide the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman.
   - This information shall be submitted at least 4 business days prior to the use of subject heavy-duty off-road equipment.
   - The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs.

R6-58

2. The project representative shall provide a plan for approval by the lead agency demonstrating that the heavy-duty off-road vehicles (50 horsepower or more) to be used in the construction project, including owned, leased, and subcontractor vehicles, will achieve a project wide fleet-average 20% NOX reduction and 45% particulate reduction compared to the most recent California Air Resources Board (ARB) fleet average.
   - This plan shall be submitted in conjunction with the equipment inventory.
   - Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available.
   - The District's Construction Mitigation Calculator can be used to identify an equipment fleet that achieves this reduction.

R6-59

3. The project representative shall ensure that emissions from all off-road diesel-powered equipment used on the project site do not exceed 40% opacity for more than three minutes in any one hour.

R6-60

[56] http://www.airquality.org/ceqa/Ch3EnhancedExhaustControl_10-2013.pdf

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- Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately. Non-compliant equipment will be documented and a summary provided to the lead agency monthly.
- A visual survey of all in-operation equipment shall be made at least weekly.
- A monthly summary of the visual survey results shall be submitted throughout the duration of the project, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey.

R6-61 CONT'D

4. The District and/or other officials may conduct periodic site inspections to determine compliance. Nothing in this mitigation shall supersede other District, state or federal rules or regulations.

R6-62

Use of Spray Equipment with Greater Transfer Efficiencies

Various coatings and adhesives are required to be applied by specified methods such as electrostatic spray, high-volume, low-pressure (HVLP) spray, roll coater, flow coater, dip coater, etc. in order to maximize the transfer efficiency. Transfer efficiency is typically defined as the ratio of the weight of coating solids adhering to an object to the total weight of coating solids used in the application process, expressed as a percentage. When it comes to spray applications, the rules typically require the use of either electrostatic spray equipment or HVLP spray equipment. The SCAQMD is now able to certify HVLP spray applicators and other application technologies at efficiency rates of 65 percent or greater.[57]

These measures offer a cost-effective, feasible way to incorporate lower-emitting equipment into the Project's construction fleet, which subsequently reduces construction emissions. A revised EIR should be prepared to include additional mitigation measures, as well as include an updated air quality assessment to ensure that the necessary mitigation measures are implemented to reduce construction emissions. Furthermore, the updated EIR should demonstrate commitment to the implementation of these measures prior to Project approval to ensure that the Project's construction-related emissions are reduced to the maximum extent possible.

R6-63

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

[57] http://www.aqmd.gov/home/permits/spray-equipment-transfer-efficiency

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Sincerely,

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

Paul E. Rosenfeld, Ph.D.

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AERSCREEN 16216 / AERMOD 19191                                    03/01/20
                                                                  20:20:32

TITLE: BreaMall_Construction


---------------------------------------------------------------------------
*****************************  AREA PARAMETERS  ***************************
---------------------------------------------------------------------------

SOURCE EMISSION RATE:         0.850E-03 g/s            0.675E-02 lb/hr

AREA EMISSION RATE:           0.120E-07 g/(s-m2)       0.954E-07 lb/(hr-m2)
AREA HEIGHT:                       3.00 meters              9.84 feet
AREA SOURCE LONG SIDE:           266.00 meters            872.70 feet
AREA SOURCE SHORT SIDE:          266.00 meters            872.70 feet
INITIAL VERTICAL DIMENSION:        1.50 meters              4.92 feet
RURAL OR URBAN:                   URBAN
POPULATION:                       42777

INITIAL PROBE DISTANCE =          5000. meters             16404. feet          R6-64


---------------------------------------------------------------------------
***********************  BUILDING DOWNWASH PARAMETERS  **********************
---------------------------------------------------------------------------

               BUILDING DOWNWASH NOT USED FOR NON-POINT SOURCES


---------------------------------------------------------------------------
**************************  FLOW SECTOR ANALYSIS  ***************************
                 25 meter receptor spacing: 1. meters - 5000. meters
---------------------------------------------------------------------------


   MAXIMUM  IMPACT  RECEPTOR

   Zo        SURFACE   1-HR CONC  RADIAL  DIST   TEMPORAL
   SECTOR    ROUGHNESS  (ug/m3)    (deg)   (m)    PERIOD
  ------------------------------------------------
      1*       1.000    0.5412      45   175.0     WIN
* = worst case diagonal



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**********  MAKEMET METEOROLOGY PARAMETERS  **********
--------------------------------------------------------------------------------

MIN/MAX TEMPERATURE:    250.0 / 310.0 (K)

MINIMUM WIND SPEED:       0.5 m/s

ANEMOMETER HEIGHT:     10.000 meters

SURFACE CHARACTERISTICS INPUT: AERMET SEASONAL TABLES

DOMINANT SURFACE PROFILE: Urban
DOMINANT CLIMATE TYPE:    Average Moisture
DOMINANT SEASON:          Winter

ALBEDO:                  0.35
BOWEN RATIO:             1.50
ROUGHNESS LENGTH:       1.000 (meters)

SURFACE FRICTION VELOCITY (U*) NOT ADUSTED


       METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT
       -------------------------------------------------------------

 YR MO DY JDY HR
 -- -- -- --- --
 10 01 10  10 01

    H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 -1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50

    HT  REF TA     HT
- - - - - - - - - - -
  10.0   310.0    2.0



--------------------------------------------------------------------------------
********** AERSCREEN AUTOMATED DISTANCES **********
                 OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE
--------------------------------------------------------------------------------


                     MAXIMUM                              MAXIMUM
           DIST     1-HR CONC                  DIST     1-HR CONC
            (m)      (ug/m3)                    (m)      (ug/m3)
         ---------------------               ---------------------
            1.00    0.4013                  2524.99    0.1954E-01
```

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25.00	0.4234	2550.00	0.1929E-01
50.01	0.4462	2575.00	0.1905E-01
75.00	0.4676	2600.00	0.1881E-01
100.00	0.4876	2625.00	0.1857E-01
125.00	0.5065	2650.00	0.1834E-01
150.01	0.5243	2675.00	0.1812E-01
174.99	0.5412	2700.00	0.1790E-01
200.00	0.4516	2725.00	0.1768E-01
225.00	0.3730	2750.00	0.1747E-01
250.00	0.3187	2775.00	0.1726E-01
274.99	0.2786	2800.00	0.1706E-01
300.00	0.2485	2825.00	0.1686E-01
325.00	0.2248	2850.00	0.1667E-01
350.00	0.2057	2875.00	0.1648E-01
375.01	0.1899	2900.00	0.1629E-01
400.00	0.1764	2925.00	0.1611E-01
425.00	0.1647	2950.00	0.1593E-01
450.00	0.1546	2975.00	0.1575E-01
475.01	0.1456	3000.00	0.1558E-01
500.00	0.1376	3025.00	0.1541E-01
525.00	0.1304	3050.00	0.1524E-01
550.00	0.1239	3075.00	0.1508E-01
575.01	0.1179	3100.00	0.1492E-01
599.99	0.1125	3125.00	0.1476E-01
625.00	0.1075	3150.00	0.1461E-01
650.00	0.1029	3174.99	0.1446E-01
675.00	0.9862E-01	3199.99	0.1431E-01
699.99	0.9464E-01	3225.00	0.1416E-01
725.00	0.9097E-01	3250.00	0.1402E-01
750.00	0.8750E-01	3274.99	0.1388E-01
775.00	0.8427E-01	3300.00	0.1374E-01
800.01	0.8128E-01	3325.00	0.1360E-01
825.00	0.7844E-01	3350.00	0.1347E-01
850.00	0.7576E-01	3375.01	0.1334E-01
875.00	0.7325E-01	3400.00	0.1321E-01
900.01	0.7088E-01	3425.00	0.1308E-01
924.99	0.6862E-01	3450.00	0.1295E-01
950.00	0.6648E-01	3475.00	0.1283E-01
975.00	0.6447E-01	3500.00	0.1271E-01
1000.00	0.6257E-01	3525.00	0.1259E-01
1024.99	0.6075E-01	3550.00	0.1247E-01
1050.00	0.5902E-01	3575.00	0.1235E-01
1075.00	0.5736E-01	3600.00	0.1224E-01
1100.00	0.5580E-01	3625.00	0.1213E-01
1125.01	0.5431E-01	3650.00	0.1202E-01
1150.00	0.5288E-01	3675.00	0.1191E-01
1175.00	0.5151E-01	3700.00	0.1180E-01
1200.00	0.5022E-01	3725.00	0.1170E-01
1225.01	0.4896E-01	3750.00	0.1159E-01
1250.00	0.4776E-01	3775.00	0.1149E-01

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LETTER R6 – Mitchell M. Tsai (77 of 121 pages)

1275.00	0.4662E-01	3800.00	0.1139E-01
1300.00	0.4551E-01	3825.00	0.1129E-01
1325.00	0.4445E-01	3850.00	0.1120E-01
1349.99	0.4343E-01	3875.00	0.1110E-01
1375.00	0.4246E-01	3900.00	0.1101E-01
1400.00	0.4152E-01	3925.00	0.1091E-01
1425.00	0.4061E-01	3950.00	0.1082E-01
1449.99	0.3974E-01	3975.00	0.1073E-01
1475.00	0.3891E-01	4000.00	0.1064E-01
1500.00	0.3809E-01	4025.00	0.1055E-01
1525.00	0.3730E-01	4050.00	0.1047E-01
1550.00	0.3655E-01	4075.00	0.1038E-01
1575.00	0.3582E-01	4100.00	0.1029E-01
1600.00	0.3512E-01	4125.00	0.1021E-01
1625.00	0.3444E-01	4150.00	0.1013E-01
1650.01	0.3379E-01	4175.00	0.1005E-01
1674.99	0.3315E-01	4200.00	0.9966E-02
1700.00	0.3254E-01	4225.00	0.9888E-02
1725.00	0.3194E-01	4250.00	0.9810E-02
1750.00	0.3136E-01	4275.00	0.9733E-02
1774.99	0.3079E-01	4300.00	0.9658E-02
1800.00	0.3025E-01	4325.00	0.9583E-02
1825.00	0.2972E-01	4350.00	0.9510E-02
1850.00	0.2920E-01	4375.00	0.9438E-02
1875.01	0.2871E-01	4400.00	0.9366E-02
1900.00	0.2822E-01	4425.00	0.9296E-02
1925.00	0.2776E-01	4450.01	0.9227E-02
1950.00	0.2730E-01	4475.00	0.9158E-02
1975.01	0.2686E-01	4500.00	0.9091E-02
1999.99	0.2644E-01	4525.00	0.9216E-02
2025.00	0.2602E-01	4550.00	0.9146E-02
2050.00	0.2561E-01	4575.00	0.9078E-02
2075.00	0.2521E-01	4600.00	0.9011E-02
2099.99	0.2483E-01	4625.00	0.8944E-02
2125.00	0.2445E-01	4650.00	0.8878E-02
2150.00	0.2408E-01	4675.00	0.8814E-02
2175.00	0.2372E-01	4700.00	0.8749E-02
2200.00	0.2337E-01	4725.00	0.8686E-02
2225.00	0.2303E-01	4750.00	0.8624E-02
2250.00	0.2270E-01	4775.00	0.8562E-02
2275.00	0.2237E-01	4800.00	0.8501E-02
2300.00	0.2206E-01	4825.00	0.8441E-02
2325.00	0.2175E-01	4850.00	0.8382E-02
2350.00	0.2145E-01	4875.00	0.8323E-02
2375.00	0.2116E-01	4900.00	0.8265E-02
2400.00	0.2087E-01	4925.00	0.8207E-02
2425.00	0.2059E-01	4950.00	0.8151E-02
2450.00	0.2032E-01	4975.00	0.8095E-02
2475.00	0.2005E-01	5000.00	0.8040E-02
2500.00	0.1980E-01		

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CONT'D

2. Response to Comments

LETTER R6 – Mitchell M. Tsai (78 of 121 pages)

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--------------------------------------------------------------------------------
**********  AERSCREEN MAXIMUM IMPACT SUMMARY  **********
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3-hour, 8-hour, and 24-hour scaled
concentrations are equal to the 1-hour concentration as referenced in
SCREENING PROCEDURES FOR ESTIMATING THE AIR QUALITY
IMPACT OF STATIONARY SOURCES, REVISED (Section 4.5.4)
Report number EPA-454/R-92-019
http://www.epa.gov/scram001/guidance_permit.htm
under Screening Guidance

                     MAXIMUM      SCALED      SCALED      SCALED      SCALED
                      1-HOUR      3-HOUR      8-HOUR     24-HOUR      ANNUAL
  CALCULATION          CONC        CONC        CONC        CONC        CONC
   PROCEDURE         (ug/m3)     (ug/m3)     (ug/m3)     (ug/m3)     (ug/m3)
---------------    ----------  ----------  ----------  ----------  ----------
FLAT TERRAIN       0.5483      0.5483      0.5483      0.5483        N/A

DISTANCE FROM SOURCE        186.00 meters



IMPACT AT THE
AMBIENT BOUNDARY   0.4013      0.4013      0.4013      0.4013        N/A

DISTANCE FROM SOURCE          1.00 meters
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LETTER R6 – Mitchell M. Tsai (79 of 121 pages)

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 Concentration     Distance Elevation  Diag  Season/Month   Zo sector       Date
  H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS     HT
REF TA     HT
   0.40130E+00         1.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.42336E+00        25.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.44623E+00        50.01      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.46756E+00        75.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.48759E+00       100.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.50646E+00       125.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.52429E+00       150.01      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0                                                                      R6-64
   0.54118E+00       174.99      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0  CONT'D
 310.0    2.0
*  0.54834E+00       186.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.45156E+00       200.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.37303E+00       225.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.31867E+00       250.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.27863E+00       274.99      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.24849E+00       300.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.22484E+00       325.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.20572E+00       350.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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2. Response to Comments

LETTER R6 – Mitchell M. Tsai (80 of 121 pages)

```
 310.0    2.0
   0.18986E+00       375.01      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.17638E+00       400.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.16475E+00       425.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.15460E+00       450.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.14561E+00       475.01      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13762E+00       500.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13042E+00       525.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.12390E+00       550.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.11795E+00       575.01      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.11249E+00       599.99      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.10750E+00       625.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.10290E+00       650.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.98623E-01       675.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.94636E-01       699.99      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.90968E-01       725.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.87499E-01       750.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.84272E-01       775.00      0.00  45.0        Winter       0-360   10011001
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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.81279E-01       800.01      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.78436E-01       825.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.75758E-01       850.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.73247E-01       875.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.70881E-01       900.01      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.68622E-01       924.99      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.66482E-01       950.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.64470E-01       975.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.62565E-01      1000.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.60746E-01      1024.99      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.59016E-01      1050.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.57365E-01      1075.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.55801E-01      1100.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.54311E-01      1125.01      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.52878E-01      1150.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.51515E-01      1175.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
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CONT'D

2. Response to Comments

LETTER R6 – Mitchell M. Tsai (82 of 121 pages)

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   0.50215E-01      1200.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.48959E-01      1225.01      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.47762E-01      1250.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.46618E-01      1275.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.45509E-01      1300.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.44448E-01      1325.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.43430E-01      1349.99      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.42457E-01      1375.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0                                                                      R6-64
   0.41522E-01      1400.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0  CONT'D
 310.0    2.0
   0.40615E-01      1425.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.39744E-01      1449.99      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.38907E-01      1475.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.38091E-01      1500.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.37305E-01      1525.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.36548E-01      1550.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.35820E-01      1575.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.35118E-01      1600.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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 310.0    2.0
   0.34441E-01      1625.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.33788E-01      1650.01      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.33153E-01      1674.99      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.32536E-01      1700.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.31940E-01      1725.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.31360E-01      1750.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.30794E-01      1774.99      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.30247E-01      1800.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.29717E-01      1825.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.29204E-01      1850.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.28706E-01      1875.01      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.28224E-01      1900.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.27757E-01      1925.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.27303E-01      1950.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.26863E-01      1975.01      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.26436E-01      1999.99      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.26019E-01      2025.00      0.00  45.0        Winter       0-360   10011001
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CONT'D

2. Response to Comments

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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.25611E-01      2050.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.25214E-01      2075.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.24827E-01      2099.99      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.24447E-01      2125.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.24077E-01      2150.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.23718E-01      2175.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.23369E-01      2200.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.23029E-01      2225.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.22697E-01      2250.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.22374E-01      2275.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.22057E-01      2300.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.21749E-01      2325.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.21448E-01      2350.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.21156E-01      2375.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.20871E-01      2400.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.20592E-01      2425.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
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CONT'D

LETTER R6 – Mitchell M. Tsai (85 of 121 pages)

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  0.20320E-01      2450.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.20054E-01      2475.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.19795E-01      2500.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.19542E-01      2524.99      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.19292E-01      2550.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.19047E-01      2575.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.18808E-01      2600.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.18573E-01      2625.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0                                                                    R6-64
  0.18344E-01      2650.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   CONT'D
 310.0    2.0
  0.18118E-01      2675.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.17899E-01      2700.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.17683E-01      2725.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.17472E-01      2750.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.17265E-01      2775.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.17062E-01      2800.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.16863E-01      2825.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.16668E-01      2850.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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2. Response to Comments

LETTER R6 – Mitchell M. Tsai (86 of 121 pages)

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 310.0    2.0
   0.16476E-01      2875.00      0.00   0.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.16290E-01      2900.00      0.00   0.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.16108E-01      2925.00      0.00   0.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.15927E-01      2950.00      0.00   0.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.15750E-01      2975.00      0.00  40.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.15577E-01      3000.00      0.00  40.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.15408E-01      3025.00      0.00  15.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.15242E-01      3050.00      0.00  15.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.15079E-01      3075.00      0.00  40.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.14919E-01      3100.00      0.00  40.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.14762E-01      3125.00      0.00  40.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.14609E-01      3150.00      0.00  10.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.14457E-01      3174.99      0.00  10.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.14309E-01      3199.99      0.00  10.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.14162E-01      3225.00      0.00  10.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.14019E-01      3250.00      0.00  10.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13877E-01      3274.99      0.00  45.0        Winter      0-360   10011001
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CONT'D

LETTER R6 – Mitchell M. Tsai (87 of 121 pages)

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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13738E-01      3300.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13602E-01      3325.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13467E-01      3350.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13335E-01      3375.01      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13205E-01      3400.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13078E-01      3425.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.12953E-01      3450.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.12830E-01      3475.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.12709E-01      3500.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.12588E-01      3525.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.12470E-01      3550.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.12354E-01      3575.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.12239E-01      3600.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.12127E-01      3625.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.12016E-01      3650.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.11907E-01      3675.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
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CONT'D

2. Response to Comments

LETTER R6 – Mitchell M. Tsai (88 of 121 pages)

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  0.11800E-01      3700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.11696E-01      3725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.11593E-01      3750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.11492E-01      3775.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.11393E-01      3800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.11295E-01      3825.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.11197E-01      3850.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.11101E-01      3875.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.11007E-01      3900.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0                                                                    R6-64
  0.10913E-01      3925.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   CONT'D
 310.0    2.0
  0.10822E-01      3950.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.10731E-01      3975.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.10642E-01      4000.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.10553E-01      4025.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.10465E-01      4050.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.10379E-01      4075.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.10294E-01      4100.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
```

LETTER R6 – Mitchell M. Tsai (89 of 121 pages)

```
 310.0    2.0
   0.10210E-01      4125.00      0.00   0.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.10127E-01      4150.00      0.00   0.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.10046E-01      4175.00      0.00   0.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.99662E-02      4200.00      0.00  35.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.98875E-02      4225.00      0.00  35.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.98099E-02      4250.00      0.00  35.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.97332E-02      4275.00      0.00  35.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.96575E-02      4300.00      0.00  35.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.95833E-02      4325.00      0.00  15.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0                                                                    R6-64
   0.95100E-02      4350.00      0.00  15.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0  CONT'D
 310.0    2.0
   0.94378E-02      4375.00      0.00  15.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.93665E-02      4400.00      0.00  15.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.92961E-02      4425.00      0.00  15.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.92267E-02      4450.01      0.00  45.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.91584E-02      4475.00      0.00  45.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.90909E-02      4500.00      0.00  45.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.92156E-02      4525.00      0.00   0.0        Winter      0-360   10011001
```

2. Response to Comments

LETTER R6 – Mitchell M. Tsai (90 of 121 pages)

```
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.91464E-02      4550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.90781E-02      4575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.90107E-02      4600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.89441E-02      4625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.88784E-02      4650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.88135E-02      4675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.87495E-02      4700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.86862E-02      4725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.86238E-02      4750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0   R6-64
 310.0    2.0
   0.85621E-02      4775.00      0.00   0.0        Winter       0-360   10011001    CONT'D
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.85011E-02      4800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.84410E-02      4825.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.83815E-02      4850.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.83228E-02      4875.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.82648E-02      4900.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.82074E-02      4925.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
```

LETTER R6 – Mitchell M. Tsai (91 of 121 pages)

```
   0.81508E-02      4950.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.80948E-02      4975.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.80395E-02      5000.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
```

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CONT'D

2. Response to Comments

LETTER R6 – Mitchell M. Tsai (92 of 121 pages)

```
AERSCREEN 16216 / AERMOD 19191                                        03/01/20
                                                                      20:22:20

TITLE: BreaMall_Operation


--------------------------------------------------------------------------------
*****************************  AREA PARAMETERS  ****************************
--------------------------------------------------------------------------------

SOURCE EMISSION RATE:            0.0117 g/s                 0.093 lb/hr

AREA EMISSION RATE:           0.166E-06 g/(s-m2)        0.132E-05 lb/(hr-m2)
AREA HEIGHT:                       3.00 meters               9.84 feet
AREA SOURCE LONG SIDE:           266.00 meters             872.70 feet
AREA SOURCE SHORT SIDE:          266.00 meters             872.70 feet
INITIAL VERTICAL DIMENSION:        1.50 meters               4.92 feet
RURAL OR URBAN:                   URBAN
POPULATION:                       42777

INITIAL PROBE DISTANCE =          5000. meters             16404. feet



--------------------------------------------------------------------------------
***********************  BUILDING DOWNWASH PARAMETERS  ***********************
--------------------------------------------------------------------------------

               BUILDING DOWNWASH NOT USED FOR NON-POINT SOURCES



--------------------------------------------------------------------------------
**************************  FLOW SECTOR ANALYSIS  ****************************
                 25 meter receptor spacing: 1. meters - 5000. meters
--------------------------------------------------------------------------------


   MAXIMUM  IMPACT  RECEPTOR

   Zo        SURFACE   1-HR CONC  RADIAL  DIST   TEMPORAL
   SECTOR    ROUGHNESS  (ug/m3)    (deg)   (m)    PERIOD
  ----------------------------------------------------
      1*       1.000     7.465      45   175.0     WIN
* = worst case diagonal



--------------------------------------------------------------------------------
```

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CONT'D

LETTER R6 – Mitchell M. Tsai (93 of 121 pages)

```
********************  MAKEMET METEOROLOGY PARAMETERS  ********************
------------------------------------------------------------------------------

MIN/MAX TEMPERATURE:    250.0 / 310.0 (K)

MINIMUM WIND SPEED:       0.5 m/s

ANEMOMETER HEIGHT:     10.000 meters

SURFACE CHARACTERISTICS INPUT: AERMET SEASONAL TABLES

DOMINANT SURFACE PROFILE: Urban
DOMINANT CLIMATE TYPE:    Average Moisture
DOMINANT SEASON:          Winter

ALBEDO:                  0.35
BOWEN RATIO:             1.50
ROUGHNESS LENGTH:       1.000 (meters)

SURFACE FRICTION VELOCITY (U*) NOT ADUSTED


       METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT
       -------------------------------------------------------------

 YR MO DY JDY HR
 -- -- -- --- --
 10 01 10  10 01

    H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 -1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50

    HT  REF TA     HT
- - - - - - - - - - -
  10.0   310.0    2.0



------------------------------------------------------------------------------
********************** AERSCREEN AUTOMATED DISTANCES **********************
                  OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE
------------------------------------------------------------------------------


                     MAXIMUM                             MAXIMUM
           DIST     1-HR CONC                 DIST     1-HR CONC
            (m)      (ug/m3)                   (m)      (ug/m3)
         ---------------------               ---------------------
            1.00     5.535                  2524.99    0.2696
```

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CONT'D

2. Response to Comments

LETTER R6 – Mitchell M. Tsai (94 of 121 pages)

25.00	5.840	2550.00	0.2661
50.01	6.155	2575.00	0.2627
75.00	6.449	2600.00	0.2594
100.00	6.726	2625.00	0.2562
125.00	6.986	2650.00	0.2530
150.01	7.232	2675.00	0.2499
174.99	7.465	2700.00	0.2469
200.00	6.229	2725.00	0.2439
225.00	5.146	2750.00	0.2410
250.00	4.396	2775.00	0.2381
274.99	3.843	2800.00	0.2353
300.00	3.428	2825.00	0.2326
325.00	3.101	2850.00	0.2299
350.00	2.838	2875.00	0.2273
375.01	2.619	2900.00	0.2247
400.00	2.433	2925.00	0.2222
425.00	2.273	2950.00	0.2197
450.00	2.132	2975.00	0.2172
475.01	2.009	3000.00	0.2149
500.00	1.898	3025.00	0.2125
525.00	1.799	3050.00	0.2102
550.00	1.709	3075.00	0.2080
575.01	1.627	3100.00	0.2058
599.99	1.552	3125.00	0.2036
625.00	1.483	3150.00	0.2015
650.00	1.419	3174.99	0.1994
675.00	1.360	3199.99	0.1974
699.99	1.305	3225.00	0.1954
725.00	1.255	3250.00	0.1934
750.00	1.207	3274.99	0.1914
775.00	1.162	3300.00	0.1895
800.01	1.121	3325.00	0.1876
825.00	1.082	3350.00	0.1858
850.00	1.045	3375.01	0.1839
875.00	1.010	3400.00	0.1821
900.01	0.9777	3425.00	0.1804
924.99	0.9465	3450.00	0.1787
950.00	0.9170	3475.00	0.1770
975.00	0.8893	3500.00	0.1753
1000.00	0.8630	3525.00	0.1736
1024.99	0.8379	3550.00	0.1720
1050.00	0.8140	3575.00	0.1704
1075.00	0.7913	3600.00	0.1688
1100.00	0.7697	3625.00	0.1673
1125.01	0.7491	3650.00	0.1657
1150.00	0.7294	3675.00	0.1642
1175.00	0.7106	3700.00	0.1628
1200.00	0.6927	3725.00	0.1613
1225.01	0.6753	3750.00	0.1599
1250.00	0.6588	3775.00	0.1585

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CONT'D

LETTER R6 – Mitchell M. Tsai (95 of 121 pages)

1275.00	0.6430	3800.00	0.1571
1300.00	0.6277	3825.00	0.1558
1325.00	0.6131	3850.00	0.1545
1349.99	0.5991	3875.00	0.1531
1375.00	0.5856	3900.00	0.1518
1400.00	0.5727	3925.00	0.1505
1425.00	0.5602	3950.00	0.1493
1449.99	0.5482	3975.00	0.1480
1475.00	0.5367	4000.00	0.1468
1500.00	0.5254	4025.00	0.1456
1525.00	0.5146	4050.00	0.1444
1550.00	0.5041	4075.00	0.1432
1575.00	0.4941	4100.00	0.1420
1600.00	0.4844	4125.00	0.1408
1625.00	0.4751	4150.00	0.1397
1650.01	0.4661	4175.00	0.1386
1674.99	0.4573	4200.00	0.1375
1700.00	0.4488	4225.00	0.1364
1725.00	0.4406	4250.00	0.1353
1750.00	0.4326	4275.00	0.1343
1774.99	0.4248	4300.00	0.1332
1800.00	0.4172	4325.00	0.1322
1825.00	0.4099	4350.00	0.1312
1850.00	0.4028	4375.00	0.1302
1875.01	0.3960	4400.00	0.1292
1900.00	0.3893	4425.00	0.1282
1925.00	0.3829	4450.01	0.1273
1950.00	0.3766	4475.00	0.1263
1975.01	0.3705	4500.00	0.1254
1999.99	0.3646	4525.00	0.1271
2025.00	0.3589	4550.00	0.1262
2050.00	0.3533	4575.00	0.1252
2075.00	0.3478	4600.00	0.1243
2099.99	0.3425	4625.00	0.1234
2125.00	0.3372	4650.00	0.1225
2150.00	0.3321	4675.00	0.1216
2175.00	0.3272	4700.00	0.1207
2200.00	0.3223	4725.00	0.1198
2225.00	0.3176	4750.00	0.1190
2250.00	0.3131	4775.00	0.1181
2275.00	0.3086	4800.00	0.1173
2300.00	0.3043	4825.00	0.1164
2325.00	0.3000	4850.00	0.1156
2350.00	0.2958	4875.00	0.1148
2375.00	0.2918	4900.00	0.1140
2400.00	0.2879	4925.00	0.1132
2425.00	0.2840	4950.00	0.1124
2450.00	0.2803	4975.00	0.1117
2475.00	0.2766	5000.00	0.1109
2500.00	0.2730		

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CONT'D

2. Response to Comments

LETTER R6 – Mitchell M. Tsai (96 of 121 pages)

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--------------------------------------------------------------------------------
**********  AERSCREEN MAXIMUM IMPACT SUMMARY  **********
--------------------------------------------------------------------------------

3-hour, 8-hour, and 24-hour scaled
concentrations are equal to the 1-hour concentration as referenced in
SCREENING PROCEDURES FOR ESTIMATING THE AIR QUALITY
IMPACT OF STATIONARY SOURCES, REVISED (Section 4.5.4)
Report number EPA-454/R-92-019
http://www.epa.gov/scram001/guidance_permit.htm
under Screening Guidance

                     MAXIMUM      SCALED      SCALED      SCALED      SCALED
                      1-HOUR      3-HOUR      8-HOUR     24-HOUR      ANNUAL
  CALCULATION          CONC        CONC        CONC        CONC        CONC
   PROCEDURE         (ug/m3)     (ug/m3)     (ug/m3)     (ug/m3)     (ug/m3)
---------------    ----------  ----------  ----------  ----------  ----------
FLAT TERRAIN        7.564       7.564       7.564       7.564        N/A

DISTANCE FROM SOURCE        186.00 meters



IMPACT AT THE
AMBIENT BOUNDARY    5.535       5.535       5.535       5.535        N/A

DISTANCE FROM SOURCE          1.00 meters
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CONT'D

LETTER R6 – Mitchell M. Tsai (97 of 121 pages)

```
 Concentration     Distance Elevation  Diag  Season/Month   Zo sector       Date
  H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS     HT
REF TA     HT
   0.55353E+01         1.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.58397E+01        25.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.61552E+01        50.01      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.64494E+01        75.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.67257E+01       100.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.69859E+01       125.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.72320E+01       150.01      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0                                                                      R6-64
   0.74649E+01       174.99      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0  CONT'D
 310.0    2.0
*  0.75636E+01       186.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.62287E+01       200.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.51455E+01       225.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.43957E+01       250.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.38433E+01       274.99      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.34276E+01       300.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.31014E+01       325.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.28377E+01       350.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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2. Response to Comments

LETTER R6 – Mitchell M. Tsai (98 of 121 pages)

```
 310.0    2.0
   0.26188E+01       375.01      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.24329E+01       400.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.22725E+01       425.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.21325E+01       450.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.20086E+01       475.01      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.18984E+01       500.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.17989E+01       525.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.17090E+01       550.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.16269E+01       575.01      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.15517E+01       599.99      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.14828E+01       625.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.14194E+01       650.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13604E+01       675.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13054E+01       699.99      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.12548E+01       725.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.12069E+01       750.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.11624E+01       775.00      0.00  45.0        Winter       0-360   10011001
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CONT'D

LETTER R6 – Mitchell M. Tsai (99 of 121 pages)

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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.11211E+01       800.01      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.10819E+01       825.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.10450E+01       850.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.10103E+01       875.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.97771E+00       900.01      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.94655E+00       924.99      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.91704E+00       950.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.88928E+00       975.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.86300E+00      1000.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.83791E+00      1024.99      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.81405E+00      1050.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.79127E+00      1075.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.76969E+00      1100.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.74914E+00      1125.01      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.72938E+00      1150.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.71058E+00      1175.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
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CONT'D

2. Response to Comments

LETTER R6 – Mitchell M. Tsai (100 of 121 pages)

```
  0.69266E+00      1200.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.67532E+00      1225.01      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.65881E+00      1250.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.64303E+00      1275.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.62774E+00      1300.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.61310E+00      1325.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.59906E+00      1349.99      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.58563E+00      1375.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.57274E+00      1400.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.56022E+00      1425.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.54821E+00      1449.99      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.53667E+00      1475.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.52541E+00      1500.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.51457E+00      1525.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.50413E+00      1550.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.49409E+00      1575.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.48440E+00      1600.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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CONT'D

LETTER R6 – Mitchell M. Tsai (101 of 121 pages)

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 310.0    2.0
   0.47507E+00      1625.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.46606E+00      1650.01      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.45730E+00      1674.99      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.44879E+00      1700.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.44057E+00      1725.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.43257E+00      1750.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.42477E+00      1774.99      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.41722E+00      1800.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.40990E+00      1825.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.40282E+00      1850.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.39596E+00      1875.01      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.38932E+00      1900.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.38287E+00      1925.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.37661E+00      1950.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.37054E+00      1975.01      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.36465E+00      1999.99      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.35890E+00      2025.00      0.00  45.0        Winter       0-360   10011001
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CONT'D

2. Response to Comments

LETTER R6 – Mitchell M. Tsai (102 of 121 pages)

```
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.35327E+00      2050.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.34779E+00      2075.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.34246E+00      2099.99      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.33722E+00      2125.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.33211E+00      2150.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.32716E+00      2175.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.32234E+00      2200.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.31765E+00      2225.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.31308E+00      2250.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.30862E+00      2275.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.30425E+00      2300.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.30000E+00      2325.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.29585E+00      2350.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.29182E+00      2375.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.28789E+00      2400.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.28405E+00      2425.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
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CONT'D

LETTER R6 – Mitchell M. Tsai (103 of 121 pages)

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  0.28029E+00      2450.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.27662E+00      2475.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.27305E+00      2500.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.26956E+00      2524.99      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.26610E+00      2550.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.26273E+00      2575.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.25943E+00      2600.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.25619E+00      2625.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.25302E+00      2650.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.24992E+00      2675.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.24690E+00      2700.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.24392E+00      2725.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.24100E+00      2750.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.23815E+00      2775.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.23534E+00      2800.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.23260E+00      2825.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.22991E+00      2850.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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CONT'D

2. Response to Comments

LETTER R6 – Mitchell M. Tsai (104 of 121 pages)

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 310.0    2.0
   0.22727E+00      2875.00      0.00   0.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.22470E+00      2900.00      0.00   0.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.22219E+00      2925.00      0.00   0.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.21969E+00      2950.00      0.00   0.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.21724E+00      2975.00      0.00  40.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.21486E+00      3000.00      0.00  40.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.21253E+00      3025.00      0.00  15.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.21024E+00      3050.00      0.00  15.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.20799E+00      3075.00      0.00  40.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.20579E+00      3100.00      0.00  40.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.20362E+00      3125.00      0.00  40.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.20151E+00      3150.00      0.00  10.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.19942E+00      3174.99      0.00  10.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.19737E+00      3199.99      0.00  10.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.19535E+00      3225.00      0.00  10.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.19337E+00      3250.00      0.00  10.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.19141E+00      3274.99      0.00  45.0        Winter      0-360   10011001
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CONT'D

LETTER R6 – Mitchell M. Tsai (105 of 121 pages)

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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.18950E+00      3300.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.18762E+00      3325.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.18576E+00      3350.00      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.18394E+00      3375.01      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.18215E+00      3400.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.18039E+00      3425.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.17867E+00      3450.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0                                                                      R6-64
   0.17697E+00      3475.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0  CONT'D
 310.0    2.0
   0.17530E+00      3500.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.17364E+00      3525.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.17201E+00      3550.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.17040E+00      3575.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.16883E+00      3600.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.16727E+00      3625.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.16574E+00      3650.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.16424E+00      3675.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
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2. Response to Comments

LETTER R6 – Mitchell M. Tsai (106 of 121 pages)

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  0.16277E+00      3700.00      0.00   0.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.16133E+00      3725.00      0.00   0.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.15992E+00      3750.00      0.00   0.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.15852E+00      3775.00      0.00   0.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.15715E+00      3800.00      0.00   0.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.15579E+00      3825.00      0.00   0.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.15446E+00      3850.00      0.00   0.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.15313E+00      3875.00      0.00   0.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.15182E+00      3900.00      0.00   0.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.15054E+00      3925.00      0.00   0.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.14927E+00      3950.00      0.00   0.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.14802E+00      3975.00      0.00   0.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.14679E+00      4000.00      0.00   0.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.14556E+00      4025.00      0.00   0.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.14435E+00      4050.00      0.00   0.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.14316E+00      4075.00      0.00   0.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
  0.14199E+00      4100.00      0.00   0.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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CONT'D

LETTER R6 – Mitchell M. Tsai (107 of 121 pages)

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 310.0    2.0
   0.14083E+00      4125.00      0.00   0.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13969E+00      4150.00      0.00   0.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13857E+00      4175.00      0.00   0.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13747E+00      4200.00      0.00  35.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13639E+00      4225.00      0.00  35.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13532E+00      4250.00      0.00  35.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13426E+00      4275.00      0.00  35.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13321E+00      4300.00      0.00  35.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13219E+00      4325.00      0.00  15.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13118E+00      4350.00      0.00  15.0        Winter      0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
 310.0    2.0
   0.13018E+00      4375.00      0.00  15.0        Winter      0-360   10011001
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 310.0    2.0
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2. Response to Comments

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-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
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 310.0    2.0
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 310.0    2.0
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   0.11243E+00      4950.00      0.00   0.0        Winter       0-360   10011001
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 310.0    2.0
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 310.0    2.0
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 310.0    2.0
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CONT'D

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EXHIBIT E

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RK engineering group, inc.

traffic engineering & design
transportation planning
parking
acoustical engineering
air quality & ghg

February 28, 2020

Mr. Mitchell Tsai
Mitchell M. Tsai, Attorney at Law, PC
155 South El Molino, Suite 104
Pasadena, CA 91101

Subject: Brea Mall Mixed-Use Project DEIR and Traffic Impact Analysis Review, City of Brea

Dear Mr. Tsai:

Introduction

RK Engineering Group Inc. has reviewed the transportation section of the DEIR (Draft Environmental Impact Report) and TIA (Traffic Impact Analysis) for the Brea Mall Mixed-Use Project located in the City of Brea. The NOP (Notice of Preparation) was dated August 16, 2019, the DEIR was dated January 2020, the Scope of Work for the TIA was dated October 15, 2019 and the TIA was dated January 9 2020.

The Scope of Work for the TIA was included in the TIA; however, it did not appear to be signed by the City. Since the TIA was more detailed than the Transportation Section of the DEIR, RK focused its review on a technical evaluation of the TIA. The TIA was a comprehensive document and evaluated both near-term and long-term traffic impacts as a result of the proposed project. Although the TIA followed the Scope of Work included in the document, there are number of technical issues that are of concern related to the technical analysis.

R6-65

The Brea Mall Mixed-Use Project DEIR and TIA report addressed the potential traffic impacts and circulation needs associated with Brea Mall Mixed Use Project (hereinafter referred to as "Project") in the City of Brea. The Project consists of redevelopment of 17.5-acres in the southwest portion of the Brea Mall property that includes the Sears parcel and adjoining transition areas adjacent to Nordstrom and Macy's. The Project involves demolishing 161,990 square-foot (SF) of the Sears department store and associated auto center and roughly 12 acres of surface parking in order to develop 183,615 SF of new retail space, a 128,000 SF health club, and a 312-unit seven-story apartment building. It should be noted that the second floor (83,500 square feet) of the Sears building was

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unoccupied during the time that the Traffic Study was prepared and when the traffic counts were taken for the study. The proposed Project is located west of State Route (SR) 57 Freeway and is generally bounded by State College Boulevard to the east, Imperial Highway (State Route 91) to the south, Randolph Avenue to the west, and Birch Street to the north. The Project is expected to be developed in several phases with the Year 2022 utilized to assess the Project's potential traffic impacts at full occupancy within a near-term cumulative traffic setting.

RK has reviewed the technical documents with respect to standard traffic engineering practice and the requirements of City of Brea, the adjacent cities, Orange County CMP (Congestion Management Program) and Caltrans. RK has identified a number of significant traffic related issues regarding the technical analysis which are included in the Comments section of this letter. The page numbers, figures and tables referenced in the Comments section of this letter relate to those included in the TIA.

R6-65

CONT'D

Comments

1. Page 2 – Study Area: The Traffic Study included the evaluation of near and long-term traffic impacts at 29 study area intersections. The study area intersections included three of the proposed mall's project driveways; however, did not include an analysis of the two (2) additional project driveways on State College Boulevard and one (1) additional driveway on Birch Street. Since the proposed project traffic would impact these three (3) intersections and they are directly adjacent the project, they should be analyzed for all scenarios included in the Traffic Study.

2. Figure 1-1 and Page 6 - Vehicular Site Access: As noted in Comment #1 above, the three (3) additional site access driveways should be analyzed for all of the project scenarios.

3. Figures 2-2 and 2-3: As a result of the proximity of Intersection #14 at Randolph Avenue, and the interior project driveway, there needs to be a queuing analysis to determine whether the westbound queuing at the project driveway would adversely affect internal circulation.

R6-66

4. Page 10 – Existing Traffic Volumes: It appears that traffic counts were taken in May, June and August. Traffic counts should typically be taken when school is in session. The local school calendar needs to be confirmed and compared to the dates of the actual traffic

R6-67

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counts. Furthermore, traffic counts during other months may be more appropriate to reflect peak traffic conditions at a large Regional Commercial Center such as the Brea Mall. R6-67 CONT'D

5. Page 21 and 24, Tables 3-6 and 3.7: It should be noted that for Intersection #20 (State College Boulevard at Imperial Highway) is already failing under Existing Conditions. R6-68

6. Page 27-30 and Table 5-1: RK has identified several issues with respect to the calculation of the project trip generation. The trip generation for the fitness/health club facility was based upon empirical data from projects located in Westwood and Framingham Massachusetts. The traffic generation should be based upon local data or trip generation rates included in the latest ITE (Institute of Transportation Engineers) Trip Generation Manual. R6-69

The internal capture utilized for the proposed residential project of 44% for weekday daily, PM peak hour, and Saturday mid-day conditions is excessive and not substantiated. This would also affect the internal capture for the proposed shopping center. It is highly unlikely that 44% of the residential trips would be contained within the mall itself and the majority of the project trips would be external to the property. R6-70

The net trip generation calculated at the bottom of Table 5 -1 does not appear to be correct. The correct calculation of net project trips should be Row C minus (-) Row A. The way the trips were calculated in Table 5-1 took credit for the existing vacant use in the second floor of the existing Sears building (83,500 square feet). That traffic was not being generated at the time that the traffic counts were completed. Therefore, additional project trips need to be assigned to the adjacent roadway network to accommodate the additional 83,500 square feet in the second floor of the Sears building in the traffic analysis in order to accurately determine the impacts of the project. R6-71

All three of these factors would tend to increase the net project trip generation for the project and would affect all of the calculations for Existing and Future conditions with the project. These trip generation corrections need to be made for the Traffic Study to be accurate and reflect the full traffic impacts as a result of the project.

8. Page 34 – Year 2040 Traffic Volume: It is unclear how the Saturday Year 2040 Traffic Volumes were calculated. Did the OCTA model include a Saturday projection of Year 2040 traffic? Or, was this somehow determined from the normal weekday traffic conditions? R6-72

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There was no explanation of how the Saturday Year 2040 (20-yer long term) Traffic Volumes were determined. R6-73

9. Page 37 - Existing Plus Project Traffic Conditions: The project has a direct significant impact to Intersection #20 (State College Boulevard at Imperial Highway); and therefore, the project should fully fund the improvements at that intersection. R6-74

10. Page 44 - Existing Plus Project Traffic Conditions (HCM): Additionally, the project has a direct significant impact to Intersection #19 (Randolph Avenue at Imperial Highway) and should fully fund the improvements to that intersection. Also, it is unclear why Intersection #20 (State College Boulevard at Imperial Highway) was not considered a direct significant impact utilizing the HCM procedures. The project increases delay during both the weekday PM and Saturday midday peak hours at that intersection and it is projected to operate at either LOS E or F. R6-75

11. Page 48 - Year 2022 Cumulative Traffic Conditions (ICU): The project has a cumulative significant impact to Intersection #20 (State College Boulevard at Imperial Highway). Therefore, the project will have to pay a fair share contribution to those improvements (see Comment 21). R6-76

12. Page 59 – Table 8-4: It should be noted that the project has a cumulative significant impact to Intersection #18 (Brea Boulevard at Imperial Highway); and therefore, should pay a pro rata share of improvements at that location. R6-77

13. Page 62 – Year 2040 Plus Project Conditions ICU and Page 70 Year 2040 + Project Conditions (HCM): As noted in this section of the TIA the project has a cumulative significant impact to several intersections for Year 2040 conditions. Therefore, the project should make a financial contribution to the improvements at these intersections. R6-78

14. Page 74 – Site Access: Again, the project should analyze site access at all six (6) driveway locations providing access to the Brea Mall. R6-79

15. Page 74 – Focused Project Driveway Synchro Queuing Assessment: The analysis estimated project queuing based upon the "average" queue times 1.5. The correct calculation of the queuing should be based upon the 95th percentile queue which is referred to as the Design Queue. The 95th percentile queue can be obtained from the R6-80

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Synchro printouts utilized in the traffic analysis. This would affect all of the evaluations of queuing at both intersections and at freeway ramps. R6-81

16. Page 75, and Tables 9-1 and 9-2: This analysis indicates that there is a queuing problem at Intersection #20 (State College Boulevard at Imperial Highway). It is unclear what is proposed to be done to resolve this issue. Furthermore, as noted in Comment #15, the average queue times 1.5 was used in this analysis as opposed to the correct 95th percentile queue (Design Queue) which should be used. R6-82

17. Page 79 – Existing Plus Project Traffic Conditions Improvements: The project would have a direct significant impact to Intersection #20 (State College Boulevard at Imperial Highway) and also for Intersection #19 (Randolph Avenue at Imperial Highway). Since this is a direct project impact, the project should fund the construction of these improvements required at these intersections. Even though these are Caltrans facilities, some form of direct financial contribution from the project is necessary as a result of the development of the project. R6-83

18. Page 81 - Year 2040 Plus Project Impacts (ICU): The analysis indicates that the project would have a cumulative significant impact at Intersection #18 (Brea Boulevard and Imperial Highway), Intersection #19 (Randolph Avenue at Imperial Highway), and Intersection #20 (State College Boulevard and Imperial Highway). The project should contribute on a fair share basis to improvements at those intersections. R6-84

19. Pages 81 and 82 – Year 2040 Plus Project Impacts (HCM): The project would have a cumulative significant impact at Intersection #16 (Harbor Boulevard at Imperial Highway), Intersection #18 (Brea Boulevard and Imperial Highway), Intersection #19 (Randolph Avenue at Imperial Highway), Intersection #20 (State College Boulevard at Imperial Highway), Intersection #22 (SR–57 Ramps at Imperial Highway) and Intersection #23 (Associated Road and Imperial Highway). The project should pay a cumulative fair share contribution to the future improvements at these intersections. R6-85

20. Page 84 – Project Related Fair Share Contribution: The project should pay 100% of those improvements identified for the project where it has a direct significant impact. For those intersections where the project has a cumulative significant impact, the project should pay a fair share contribution to the improvements. R6-86

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21. Pages 85, 86 and 87 – Tables 10-2, 10-3 and 10-4: The project fair share should be calculated based upon the project traffic contribution divided by the growth in traffic for Future Conditions, not the total traffic at the intersection. For example, on Tables 10-3 and Table 10-4, the correct calculation of project fair share percentage should be based upon Column 2 divided by Column 3, minus (-) Column 1. This formula for calculating fair share is identified in both the OCTA CMP Guidelines, and the Caltrans Traffic Study Guidelines. By using the correct formula, this would result in a much greater fair share than is indicated Tables 10-3 and 10-4 for the project's share of the improvements to each of the intersections where there was cumulative significant impact as a result of the project. R6-87

22. If the developer contributes to an improvement included in the City's Traffic Impact Fee program, then a credit can be given with respect to transportation fees. However, as noted in Comment #21, the correct methodology should be utilized for determining the fair share contribution to each of the significantly impacted intersections. R6-88

23. Page 90 – SR–57 Off Ramp Queuing Analysis: Again, the queuing analysis should be based upon the 95th percentile queue (Design Queue), not the average queue times 1.5. This also affects Tables 11-1 and 11-2. R6-89

24. Page 98 – Table 12-2: For Roadway Segment #4 (Imperial Highway east of State College Boulevard), it is unclear why it is not (YES) within the radius of influence since this is similar to what occurs for weekday conditions (Table 12-1) for the same roadway segment. Again, a 3% change is shown under both cases. R6-90

25. Pages 99 and 100 – Tables 12-3 and 12-4: Again, the project has a direct significant impact to Intersection #20 (State College Boulevard at Imperial Highway); and therefore, should require a payment for the improvements required at that intersection. R6-91

26. Page 105 – Imperial Highway Collision History: A review of potential collisions at this intersection was performed in this evaluation. It appeared that the only collisions that were reviewed with respect to potential improvements were related to pedestrian collisions, and collisions related to lane changes. While these types of collisions are certainly important to review, all types of collisions should be reviewed and it is unclear why they were not included in the analysis. Other types of collisions, such as: broadside, rear end and other types of collisions, would warrant evaluation with respect to identifying traffic safety improvements. It appeared that only 12 of the correctable collisions were reviewed in R6-92

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comparison to the over 118 collisions that occurred at the intersection of State College Boulevard at Imperial Highway, and the 27 collisions that occurred at the intersection of Randolph at Imperial Highway. Other types of safety improvements could be considered for the other types of collisions and should be addressed at these two intersections.

Conclusions

RK Engineering Group Inc. has reviewed the DEIR Transportation Section and Traffic Impact Analysis prepared for the Brea Mall Mixed-Use project located in the City of Brea. Based upon this review, RK has identified a number of transportation issues related to the technical analysis that need to be addressed prior to considering the DEIR and Traffic Study being complete. Some of the comments would have a potentially substantial effect on the Conclusions and Findings of the Traffic Study if they were to be addressed. Most significant are the calculation of project trip generation, the identification of the correct project fair share, and funding contribution of improvements to the deficient intersections and roadways in the study area.

R6-92

CONT'D

RK Engineering Group, Inc. appreciates his opportunity to work with Mitchell Tsai M Tsai, Attorneys-at-Law PC on this project. If you have any questions regarding our comments or need further review please give me a call at 949-474-0809.

Respectfully submitted,

Robert Kahn, PE
Founding Principal
RK ENGINEERING GROUP, INC.

XC: Greg Sonstein, Mitchell M Tsai Attorneys-at-Law, PC

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EXHIBIT F

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RK engineering group, inc.

traffic engineering & design
transportation planning
parking
acoustical engineering
air quality & ghg

February 28, 2020

Mr. Mitchell Tsai
Mitchell M. Tsai, Attorney at Law, PC
155 South El Molino, Suite 104
Pasadena, CA 91101

Subject: **Brea Mall Mixed Use Project DEIR and Noise Impact Review, City of Brea**

Dear Mr. Tsai:

Introduction

RK ENGINEERING GROUP, INC. (RK) is pleased to provide this review of potential environmental noise impacts from the Brea Mall Mixed Use project (hereinafter referred to as project), located in the City of Brea, California. This review is based on the information provided in the *Brea Mall Mixed Use Project Draft Environmental Impact Report,* January 2020 (hereinafter referred to as DEIR).

R6-93

According to the DEIR, the project consists of redeveloping 17.5 acres within the existing Brea Mall property, including the Sears parcel and adjoining transition areas adjacent to Nordstrom and Macy's. The Project involves demolishing 161,990 square feet (SF) of the Sears department store and associated auto center and roughly 12 acres of surface parking in order to develop 183,615 SF of new retail space, a 128,000 SF health club, and a seven story, 312 dwelling unit apartment building.

The purpose of this letter is to review the DEIR from a noise impact standpoint and provide comments to help ensure that all potential impacts from the project are adequately identified and the effects mitigated to the maximum extent feasible.

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2. Response to Comments

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Comments

The following comments are provided on Section 5.8 Noise in the DEIR.

1. Page 5.8-13, Impact Analysis – Construction Equipment. The DEIR analyzes construction noise impacts at several distant sensitive receptor locations, the nearest of which is located 500 feet to the west (Grace Covenant Community Church). However, it appears that several other surrounding businesses and properties will likely be impacted by noise from this project that were not analyzed.

   In particular, The Spa at the Glen is located approximately 50 feet from where heavy construction activities will take place, including the demolition of the Sears building. This use should be considered a noise-sensitive land use given the type of therapeutic services and quiet environment that are required within the day spa. There are also several other businesses, including high-quality sit down restaurants and banks located within close proximity to the proposed site of construction that may be negatively impacted by noise. R6-93 CONT'D

   The FTA Transit Noise and Vibration Impact Assessment Manual states that businesses can be considered noise-sensitive if low noise levels are an important part of operations[1].

   Construction noise calculations shown in Appendix G, indicate construction noise levels from the project will be above the 80 dBA Leq threshold of significance at 50 feet. Therefore, significant noise impacts may occur to The Spa at the Glen and other surrounding businesses near the project site.

   The DEIR should be updated to disclose all potential locations where construction noise impacts may significantly increase ambient noise levels and provide the necessary mitigation measure to ensure the effects are mitigated to be less than significant.

[1] FTA Transit Noise and Vibration Impact Assessment Manual. September 2018. Page 24. https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf

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2. Page 5.8-19, Construction Vibration – Vibration Annoyance. The DEIR does not analyze vibration impacts to the surrounding businesses near the project site. As previously mentioned, The Spa at the Glen is located approximately 50 feet from where heavy construction activities will take place, including the demolition of the Sears building. At this distance, vibration impacts from heavy construction activities will exceed the 70 VdB threshold of significance prescribed in the DEIR.

   Therefore, the DEIR should be updated to disclose all potential locations where construction vibration impacts may occur and provide the necessary mitigation measure to ensure the effects are mitigated to be less than significant.

Conclusions

R6-94

Based upon this review, the DEIR for the Brea Mall Mixed Use project has not disclosed all potential noise and vibration impacts from the construction of the project. Additional analysis and mitigation measures should be provided to ensure the project does not adversely affect existing businesses surrounding site.

RK Engineering Group, Inc appreciates this opportunity to work with Mitchell Tsai, Attorney at Law. If you have any questions regarding our review, or need additional analysis, please call me at (949) 474-0809.

Respectfully submitted,
RK ENGINEERING GROUP, INC.

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2. Response to Comments

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R6. Response to Comments Mitchell M. Tsai, Attorney At Law, on behalf of Southwest Regional Council of Carpenters (Southwest Carpenters), dated March 2, 2020.

Intro Responses to comments provided on behalf of the Southwest Regional Council of Carpenters (Southwest Carpenters) are provided in responses R6-1 through R6-94.

At the request of Southwest Carpenters, the City will include Mitchell M. Tsai and the Southwest Carpenters on the project mailing list.

The request for the Simon Property Group to hire construction workers who have graduated from a Joint Labor Management apprenticeship and are registered apprentices will be forwarded to the Applicant.

The professional qualifications of the reviewing staff are included in the record. Responses to comments made by the professional staff referenced in Exhibits A through E are included below.

It should be noted that since the EIR was circulated, Senate Bill 743 (SB 743) went into effect. Under the new Guidelines, vehicle miles traveled (VMT)-related metric(s) that evaluate the significance of transportation-related impacts under CEQA for development projects, land use plans, and transportation infrastructure projects are required beginning on July 1, 2020. The legislation does not preclude the application of local general plan policies, zoning codes, conditions of approval, or any other planning requirements that require evaluation of LOS, but these metrics may no longer constitute a basis for determining transportation impacts under CEQA. The City of Brea adopted VMT metrics for CEQA development projects in October 2020. The Final EIR includes changes to Section 5.12, *Transportation*, to reflect the new VMT thresholds adopted by the City (see also FEIR, Volume II, Appendix I2). In addition, a revised Transportation Analysis is provided (see FEIR, Volume II, Appendix I1).

R6-1 The Commenter broadly asserts that the Draft EIR is inadequate. Pursuant to CEQA Guidelines Section 15088.5, a Draft EIR is required to be recirculated only when "significant new information" is added to the EIR after circulation of the Draft EIR. The proposed project's EIR was prepared in accordance with CEQA Guidelines. The Draft EIR comprehensive assesses the significant environmental effects of the project, provides a reasonable range of alternatives to the proposed project, and feasible mitigation measures to reduce and avoid potentially significant environmental impacts. No "significant new information" has been added to the revised Draft EIR (see Volume I of this FEIR); and therefore, the Draft EIR is not inadequate and does not need to be recirculated (See responses to comments R6-2 through R6-94).

City staff has reviewed the EIR and determined that none of this material constitutes the type of significant new information that requires recirculation of the DEIR for further public comment under CEQA Guidelines Section 15088.5. None of this new material

indicates that the project will result in a significant new environmental impact not previously disclosed in the DEIR. Additionally, none of this material indicates that there would be a significant increase in the severity of a previously identified environmental impact that will not be mitigated, or that there would be any of the other circumstances requiring recirculation described in Section 15088.5 of the CEQA Guidelines.

R6-2 Since the EIR was circulated, changes were made to the project in light of the COVID-19 pandemic's effect on retail (see Volume I of the FEIR). The analysis in the Draft EIR has been updated to reflect the updated project to ensure an accurate, stable, and finite project description. The number of parking spaces provided by the project is clearly identified in Section 3.5.1.5, *Parking*, and Table 3-4, *Brea Mall Surface and Structure,* in the Draft EIR. The parking spaces identified in this table is the minimum number of parking spaces that the project would provide. The project description also identifies where the parking will be provided in terms of surface parking or within the podium-style parking structure at the residential portion of the project site. The City requires parking study in order to identify additional parking strategies needed for the project's Parking Management Plan (see plans, programs, and policies [PPP] TRAF-3). The strategies in the parking study and Parking Management Plan do not affect the total minimum number of parking spaces provided at the Brea Mall. Additionally, CEQA does not require an evaluation of parking impacts because the inconvenience resulting from a parking shortage is a social impact, not an environmental impact (Public Resources Code Section 21099(b)(3)).

R6-3 See response to Comments R6-93 and R6-94 for comments identified in Exhibit F. The City of Brea Municipal Code Chapter 8.20, *Noise Control*, sets exterior noise standards for residential properties. The Municipal Code defines residential property as "a parcel of real property which is developed and used either in part or in whole for residential purposes, other than transient uses such as hotels and motels." Section 8.20.090 applies the exterior noise standards to the schools, hospitals and churches. The Municipal Code does not define commercial properties, such as a spa or restaurant, as noise or vibration sensitive uses. Furthermore, The Spa at the Glen is a tenant of the Simon Property Group located within the interior of the Brea Mall. Although there are no CEQA-related noise impacts, Simon Property Group plans to coordinate with mall owners and tenants during construction activity to address construction noise and vibration concerns of mall property owners and tenants.

The project would comply with the City's allowable hours of construction; therefore, exempting construction noise from the aforementioned exterior noise standards at residential properties. The Federal Transit Administration (FTA) residential criterion of 80 dBA Leq was used in the Draft EIR to assess construction impacts at nearby sensitive receptors. It should be noted that the FTA has no discretionary authority over this project and the criterion of 80 dBA Leq was conservatively adopted for the Draft EIR analysis at noise-sensitive uses (as defined by the Municipal Code).

R6-4 See response to Comment R6-94 regarding the Municipal Code's vibration limit regulating vibration from the operation of a use ("every use shall be so operated"). The Municipal Code does not define commercial properties, such as a spa or restaurant, as noise or vibration sensitive uses. Furthermore, The Spa at the Glen is a tenant of the Simon Property Group located within the interior of the Brea Mall. Although there are no CEQA-related vibration impacts, Simon Property Group plans to coordinate with mall owners and tenants during construction activity to address construction noise and vibration concerns of mall property owners and tenants. Thus, the EIR discloses those locations where potential noise and vibration impacts would occur and no mitigation measures are needed.

R6-5 CEQA does not restrict an agency's discretion to identify and pursue a particular project designed to meet a particular set of objectives. The project objectives were formulated in coordination with the City and the Applicant and are not so narrowly defined that they preclude development of project alternatives. As identified in the Draft EIR, the project objectives help guide the alternatives identified in Chapter 7, *Alternatives to the Proposed Project*. The EIR identifies four alternatives, many of which meet all or some of the project objectives. The objectives reflect the underlying purpose of the project (e.g., redevelop the former Sears building). The objectives also highlight desired project benefits, including consistency of the project with the City's General Plan goals and policies, improving the jobs-housing balance, and providing opportunities to utilize alternative transportation near the site. Consequently, the objectives of the project do not need to be reformulated, as suggested by the Commenter.

R6-6 The Commenter broadly asserts that the Draft EIR is inadequate because of new information provided by the Commenter. Pursuant to CEQA Guidelines Section 15088.5, a Draft EIR is required to be recirculated only when "significant new information" is added to the EIR after circulation of the Draft EIR. The proposed project's EIR was prepared in accordance with CEQA Guidelines. Revisions to the proposed project identified in the Volume I of the FEIR do not identify "significant new information" pursuant to CEQA Guidelines Section 15088.5. As identified in response to Comments R6-1 and R6-7 through R6-12 below, none of these conditions exist. The Draft EIR comprehensively assesses the significant environmental effects of the project, provides a reasonable range of alternatives to the proposed project, and feasible mitigation measures to reduce and avoid potentially significant environmental impacts. No "significant new information" has been added to the Draft EIR; and therefore, the Draft EIR is not inadequate and does not need to be recirculated.

The Commenter's broad statement that a determination that regulatory compliance will be sufficient to prevent significant adverse impacts must be based on project-specific analysis of potential impacts and the effect of regulatory compliance, is not correct. A condition requiring compliance with regulations is a common and reasonable mitigation measure and may be proper where it is reasonable to expect compliance (*Oakland Heritage*

Alliance v City of Oakland [2011] 195 Cal. App. 4th 884, 906). Nonetheless, where compliance with an ordinance was found to fully reduce impacts of the project (e.g., construction noise and vibration), the EIR provides a site-specific evaluation of impacts of the project at sensitive receptors (see response to Comment R6-3 and R6-4).

R6-7 Responses to Comments provided in Exhibit E are provided in responses R6-65 through R6-92 and provide the detail requested by the Commenter on the traffic counts, study area, trip rates, and other model parameters and results for traffic modeling. However, since the EIR was circulated, SB 743 went into effect. Under the new Guidelines, VMT-related metric(s) that evaluate the significance of transportation-related impacts under CEQA for development projects, land use plans, and transportation infrastructure projects are required beginning on July 1, 2020. The legislation does not preclude the application of local general plan policies, zoning codes, conditions of approval, or any other planning requirements that require evaluation of LOS, but these metrics may no longer constitute a basis for determining transportation impacts under CEQA. The City of Brea adopted VMT metrics for CEQA development projects in October 2020. The Final EIR includes changes to Section 5.12, *Transportation*, to reflect the new VMT thresholds adopted by the City (see also FEIR, Volume II, Appendix I2). In addition, a revised Transportation Analysis is provided (see FEIR, Volume II, Appendix I1).

R6-8 Responses to comments provided in Exhibit D are provided in responses R6-22 through R6-64.

Response to Comments R6-23 through R6-64 below provide additional details on the modeling parameters used in CalEEMod. Modeling inputs are clearly substantiated in the Draft EIR, including land uses, construction activities, carbon dioxide (CO_2) intensity factor, architectural coatings, Tier 4 equipment and construction measures, water rates and water efficiency measures, and wastewater treatment rates.

As identified in response to Comment R6-31, the construction modeling was revised to reflect a smaller scale development's demolition haul phase (see Volume II, Appendix B1). However, the proposed project has been reduced further since the construction modeling; therefore, the construction modeling in the EIR is conservative. The revisions to the air quality tables affected by the revised modeling in Appendix B1 have been incorporated into the EIR (see Volume I of the FEIR).

R6-9 The US Environmental Protection Agency (EPA) signed in the final rule to introduce Tier 4 emissions standard on May 11, 2004. As equipment with these emissions standards were phased-in between 2008 through 2015 by the US EPA, construction equipment with engines 50 horsepower and over that meet Tier 4 emissions are readily available in construction fleets throughout California. The City has determined this mitigation measure to be feasible. The emissions reductions associated with use of Tier 4 construction equipment over 50 horsepower were modeled using CalEEMod and were

provided in the EIR (see Table 5.2-14). Therefore, Mitigation Measure AQ-1 is effective at mitigating the project's potentially significant construction impacts. See response to Comment R6-35 below.

R6-10 The Draft EIR evaluates the proposed project's potential to result in physical impacts to the environment. Pursuant to the *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369, impacts of the environment on the proposed project are not CEQA impacts. The primary driver of health risk is diesel particulate matter (DPM), which is primarily associated with diesel trucks. As identified in Impact 5.2-5, the proposed project would not result in a substantial increase in concentrations of air pollutants as the project does not generate a substantial number of trucks or stationary sources of emissions onsite. Consequently, the proposed project would not exacerbate existing environmental hazards. In regard to air quality compatibility, which is not a CEQA impact, residential land uses are up-wind and over a quarter mile from State Route 57 (SR-57) and 300 feet away from Imperial Highway. Traffic volumes on Imperial Highway (83,344 vehicle per day future plus project) are less than 100,000 vehicles per day cited in the 2005 California Air Resources Board's Air Quality and Land Use Handbook guidance document for siting new sensitive receptors.

R6-11 See also response to Comment R6-18 and R6-43 through R6-50, regarding the need for a construction health risk assessment (HRA). A construction risk assessment has been conducted and has been included in Volume II, Appendix B2 of this FEIR to supplement the analysis under Impact 5.2-4 in Section 5.2, *Air Quality*, of the Draft EIR (see Volume I of this FEIR). As identified in Appendix B2, the incremental cancer risk of 2.6 in a million was determined for residents to the west of the project site. Additionally, the chronic non-cancer hazard index of 0.007 was calculated for nearby residents. Since this modeling, the proposed project has been reduced further, and therefore, the HRA modeling is conservative. The calculated health risks are well below the South Coast AQMD's significance thresholds of 10 in a million for cancer risk and 1.0 for chronic hazards without mitigation, and project-related construction health impacts would be less than significant.

The results of the HRA in Appendix B2 further substantiate that construction emissions would not pose a threat to sensitive receptors and no additional mitigation measures are necessary. Consequently, none of the conditions identified in CEQA Guidelines Section 15088.5 have occurred that warrant recirculation.

R6-12 See response to Comment R6-9 and Comments R6-51 and R6-52 below. Modeling inputs are clearly substantiated in the EIR. Greenhouse gas (GHG) emissions generated by the project were not underestimated. The EIR provides a conservative estimate of the increase in GHG emissions generated by the proposed project.

2. Response to Comments

R6-13 See response to Comments R6-8 and R6-9; response to Comments R6-35 regarding additional diesel control measures for construction equipment; and response to Comment R6-30 regarding emissions generated by the architectural coatings.

R6-14 As stated in Chapter 5.6, *Hazards and Hazardous Materials,* the Phase II Environmental Site Investigation found that no further assessment is warranted as constituents found in the soil samples were below their respective health risk screening levels. Mitigation Measures HAZ-1 ensures that in the unlikely event that contaminated soils are uncovered at the project site during construction activities, such soils would be removed and transported offsite in accordance with existing federal and state laws. Pursuant to the CEQA Guidelines Section 15126.4(a)(1)(B), mitigation measures may specify performance standards for mitigating a significant impact when it is impractical or infeasible to specify the specific details of mitigation during the EIR review process, provided the lead agency commits to implement the mitigation, adopts the specified performance standard, and identifies the types of actions that may achieve compliance with the performance standard. In this case, the environmental site investigation concluded that the nature or extent of mitigation that may be required depends on what is uncovered during construction since the Sears building is not yet demolished. Mitigation Measure HAZ-1 lays out clear performance standards for the testing and removal that would be implemented during construction depending on what is uncovered underneath the Sears building. As such, the requirement to prepare and implement a Soils Management Plan is not improper deferral.

R6-15 Under the Planning and Zoning Law (Government Code Sections 65000–66499.58), strict conformity of a project with all aspects of a general plan is not required. A proposed project is considered to be consistent with the general plan if it furthers one or more policies and does not obstruct other policies. Chapter 5.7*, Land Use and Planning*, provides supporting evidence that the project is generally consistent with the goals and policies of City's General Plan. Furthermore, it should be noted that an inconsistency between a proposed project and an applicable plan is a legal determination, not a physical impact on the environment.

The project Applicant will be required to comply with the City of Brea's Affordable Housing Ordinance, which requires the project to set aside 10 percent of the 380 units for affordable housing. As the project would comply with this requirement, the project would not conflict with the City's Affordable Housing Ordinance.

R6-16 One of the objectives of the project is to improve the jobs-housing balance of the City of Brea by providing new housing close to jobs and services. The proposed project would help the City achieve the housing allocation identified by the California Department of Housing and Community Development (HCD) Regional Housing Needs Assessment (RHNA) by providing 380 new dwelling units. See response to comment R6-15. As identified in response to comment R6-15, the City will require that a minimum of 10

percent of the 380 units be affordable units in accordance with the City's Affordable Housing Ordinance.

R6-17 The Commenter broadly asserts that the Draft EIR is inadequate because of new information provided by the Commenter. Pursuant to CEQA Guidelines Section 15088.5, a Draft EIR is required to be recirculated only when "significant new information" is added to the EIR after circulation of the Draft EIR. The proposed project's EIR was prepared in accordance with CEQA Guidelines. Volume I of this FEIR includes revisions to the Draft EIR, which substantiate that no "significant new information" pursuant to CEQA Guidelines Section 15088.5 has been identified. As identified in response to Comments R6-18 below, none of these conditions exist. The Draft EIR comprehensively assesses the significant environmental effects of the project, provides a reasonable range of alternatives to the proposed project, and feasible mitigation measures to reduce and avoid potentially significant environmental impacts. No "significant new information" has been added to the Draft EIR; and therefore, the Draft EIR is not inadequate and does not need to be recirculated.

R6-18 Pursuant to CEQA Guidelines Section 15088.5, a Draft EIR is required to be recirculated only when "significant new information" is added to the EIR after circulation of the Draft EIR. None of these conditions exist.

A construction risk assessment has been conducted and has been included in Volume II, Appendix B2 of this FEIR to supplement the analysis under Impact 5.2-4 in Section 5.2, *Air Quality*, of the Draft EIR (see Volume I of this FEIR). As identified in Appendix B2, the incremental cancer risk of 2.6 in a million was determined for residents to the west of the project site. Additionally, the chronic non-cancer hazard index of 0.007 was calculated for nearby residents. Since this modeling, the proposed project has been reduced further, and therefore, the modeling is conservative. The calculated health risks are well below the South Coast AQMD's significance thresholds of 10 in a million for cancer risk and 1.0 for chronic hazards without mitigation.

The results of the HRA in Appendix B2 were integrated into Section 5.2, Air Quality of the Draft EIR (see Volume I of this FEIR) which substantiate that construction emissions would not pose a threat to sensitive receptors and project-related construction health impacts would be less than significant and no additional mitigation measures are necessary. Consequently, none of the conditions identified in CEQA Guidelines Section 15088.5 have occurred that warrant recirculation. See response to Comments R6-1, R6-7 through R6-12, R6-17, and R6-43 through R6-50.

R6-19 The professional work experience of the air quality and GHG expert is included in the record.

R6-20 The professional work experience of the air quality and GHG expert is included in the record.

R6-21 The professional work experience of the traffic and noise expert is included in the record.

R6-22 Responses to air quality and GHG emissions modeling comments are provided in responses R6-23 through R6-64 below.

R6-23 The Draft EIR provides substantial evidence supporting the changes to the model defaults in Appendix B1 of the Draft EIR. Appendix B1 includes both the CalEEMod outputs as well as worksheets with descriptions of the reasons why modeling parameters were updated in the model. Specific responses to changes to the model defaults are provided below. It should be noted that since the modeling, the proposed project has been reduced further, and therefore, the modeling is conservative.

R6-24 See response to Comment R6-23.

R6-25 The "existing" scenario does not overestimate emissions associated with the existing land uses at the 73.8-acre Brea Mall (see response to Comment R6-26). The "project" scenario does not underestimate emissions. The net change between existing and project conditions is the net increase generated by the proposed project. Specific responses to changes to the model defaults are provided below.

R6-26 The Commenter states the "Other Asphalt Surfaces" and the "Parking Lot" land uses in the model are causing existing emissions at the Brea Mall to be overestimated. This is not correct. The other asphalt surfaces represent internal driveways at the mall (e.g., ring road, driveways) while parking lots are associated with the large swath of parking available at the existing mall. These land uses do not generate long-term operational emissions (see response to Comment R6-27) and accurately represent the land uses on-the-ground at the existing Brea Mall.

R6-27 The surface lot acreage for the existing Brea Mall is 26.64 acres, and is accurately reflected in the existing conditions model as the "Parking Lot" land use. The "Other Asphalt Surfaces" land use accounts for the remainder of the surface area of the mall (e.g., ring road, driveways). CalEEMod does not model acreage associated with the "Parking Lot" land use category as "walls" to be painted. Furthermore, under the "Area" Subcategory for existing conditions, the existing conditions model run does not generate reactive organic gases (ROG) emissions. No changes to the existing Brea Mall model run are warranted. Therefore, the modeling conducted for the project provides a conservative estimate of net criteria air pollutant emissions. See response to Comment R6-26.

R6-28 The acreages associated with the "Other Asphalt Surfaces" and "Parking Lot" are not modeled as "building square footage" by CalEEMod (see Appendix B1). CalEEMod only applies the natural gas rates to land use categories that are traditional buildings, which excludes land uses in the "Parking Lot" land use category. As a result, CalEEMod does not model this acreage as "walls" to be painted or "building space" that would be heated or cooled. This can be verified by looking at the model outputs for the existing conditions

run, which shows that the only land use category that generates emissions from natural gas use is the Regional Shopping Center. No changes to the existing Brea Mall model run are warranted. Modeling conducted for the project provides a conservative estimate of net criteria air pollutant emissions. See response to Comment R6-23.

R6-29 Appendix B1 clearly substantiates the changes to the model defaults for the Southern California Edison's (SCE) carbon intensity. The default carbon intensity in CalEEMod are based on older 2010-2012 carbon intensities from the utilities. SCE's Sustainability Report provides annual updates to the carbon intensity specific to SCE's electricity. The citation provided to the Sustainability Report for SCE is correct; however, the weblink was cut off in the Appendix. An updated web link for the Southern California Edison 2020 Sustainability Report citation used for the CO_2e intensity factor is provided below:

https://www.edison.com/content/dam/eix/documents/sustainability/eix-2020-sustainability-report.pdf

R6-30 As with any active project undergoing an approval process, multiple sets of site plans are submitted that respond to City comments throughout the environmental review process. This response explains that, even with the revisions to the project description to reflect the revised project site plans, the air quality analysis in the Draft EIR both construction and operation is conservative.

For construction emissions, the worst-case scenario for volatile organic compounds (VOC) emissions from residential architectural coating would be 52 lbs/day. Thus, the changes to the project would not result in emissions that exceed the South Coast AQMD significance threshold of 75 lbs per day of VOCs during construction activities.

Appendix B1 operational architectural coating emissions is conservative as it reflects a larger buildout compared to the proposed project.

R6-31 Appendix B1 identifies that the proposed project would generate 1,320 tons of demolition debris hauled in 22 ton capacity trucks and 280 tons of metal hauled in 14 cubic yard trucks associated with the 161,990 square foot former Sears building, resulting in a total of 160 haul trips during the demolition phase. The haul trucks associated with the demolition phase was accidently omitted from the model. The model has been revised to account for the demolition haul trips identified in Appendix B1. These changes are reflected in Section 5.2, *Air Quality*, in the revised Draft EIR (Volume I of the FEIR). As shown in the revised tables, the haul trucks nominally affect the construction emissions generated by the proposed project. Construction emissions generated by the project would continue to be less than significant with Mitigation Measure AQ-1.

R6-32 The model has been revised to account for the demolition haul trips identified in Appendix B1. As shown in Section 5.2 of the revised Draft EIR (see Volume I of the FEIR), the haul trucks nominally affect the construction emissions generated by the

proposed project. Construction emissions generated by the project would continue to be less than significant with Mitigation Measure AQ-1. See response to Comment R6-31.

R6-33 The Draft EIR identifies that preliminary information on construction activities was based on data provided by the developer, as identified in Table 3-5, *Construction Phasing for Proposed Project*. The Applicant's construction contractor provided a detailed list of the number and type of construction equipment as well as an estimate of the number of construction employees and trips associated with the project which warranted changes to the CalEEMod defaults. Please refer to pages B1-48 through B1 B-71 in Appendix B1 (see Volume II of the FEIR). During construction of the project would generate a maximum of 324 worker trips per day. The number of workers identified in the model reflects a reasonable worst-case analysis of the project construction activities, and is therefore, conservative.

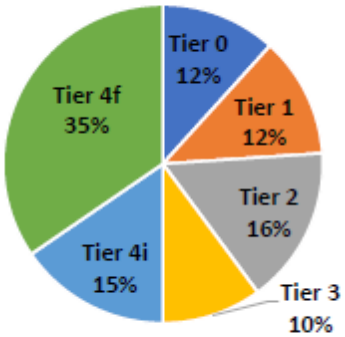
R6-34 The unmitigated construction modeling conservatively accounts for 100 grams per liter (g/L) VOC content paints for nonresidential exterior and interior applications (see Appendix B1 in the Draft EIR). Zero VOC paints were not assumed in the unmitigated analysis.

Appendix B1 documents changes to the CalEEMod defaults for the "parking area" that would be painted. The reduction in construction area for parking lots, parking garages, and driveways cited by Commenter reflect the square footage that would actually be painted in project-related parking lots, structures, and driveways. The CalEEMod User's Guide Appendix A identifies that only 6 percent of total parking area is painted for striping, handicap symbols, directional arrows and car space descriptions in parking lots. The Draft EIR Appendix B1, page B1-50 documents the calculations that derive the square feet of painting for striping in the CalEEMod runs. Therefore, the EIR clearly substantiates the changes to the model defaults in this regard, and the modeling is conservative as Appendix B1 analyzes a larger buildout than what is currently proposed.

Table 5.2-10, *Maximum Daily Regional Construction Emissions*, shows that construction activities would not generate VOC emissions that exceed 75 lbs per day. As identified above, this is based on the CalEEMod default for non-residential uses of 100 g/L content paints, which is higher than that allowed under South Coast AQMD Rule 1113 for flat coats. As a result, mitigation for zero-VOC paints is not necessary and the change in VOC content cited by the Commenter in the mitigated model run is moot since this was not utilized in the analysis.

R6-35 The US EPA signed in the final rule to introduce Tier 4 emissions standard on May 11, 2004. As equipment with these emissions standards were phased-in between 2008 through 2015 by the US EPA, construction equipment with engines that meet Tier 4 emissions are readily available in construction fleets throughout California. The South AQMD in their comment letters to lead agencies frequently recommends use of Tier 4 construction

equipment. In South Coast AQMD's draft 2022 Air Quality Management Plan Policy Brief's indicates that Tier 4 equipment comprises 50 percent of all off-road equipment in California.[4] Incorporation of this mitigation measure is feasible. Therefore, additional mitigation measures would not be required to result in less than significant impacts during construction.



(b) Off-road Equipment[6]

R6-36 See response to Comment R6-35. The figure cited by the Commenter shows the State's 2014 construction fleet, which is before the last of the Tier 4 equipment were phased in and shortly after the Great Recessions that corresponded to a downturn in construction activities in the State. Construction activities associated with the project would commence in 2020, which is a full 6 years after this survey was taken and 5 years after all construction equipment was mandated to achieve Tier 4 standards. As cited above, the South AQMD frequently cites that use of Tier 4 construction equipment is feasible. Therefore, additional mitigation measures would not be required to result in less than significant impacts during construction.

R6-37 Modeling was updated in the revised Draft EIR (Volume I of this FEIR) for the new CalEEMod version 2020.4.0. The new CalEEMod 2020 is based on the 2019 Building and Energy Efficiency Standards of the Title 24 California Building Code. It should be noted that the California Green Building Standards Code (CALGreen) clearly identifies that "high-rise residential and hotel/motel buildings are considered nonresidential buildings."

R6-38 Please see page B1-63 and B1-66 of Appendix B1. The percentages in the model are based on statewide data of the primary treatment methods. For example, in the state 10.33 percent of wastewater is treated using septic tanks. The project clearly does not involve

[4] South Coast Air Quality Management District. 2022, May. Draft 2022 Air Quality Management Plan. Policy Briefs; Black Box Measures. http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/combined-bb-measures.pdf?sfvrsn=8

use of septic tanks; and therefore, septic tanks was zeroed out in the model. Similarly, while there may be some anaerobic bacteria digest sludge during the wastewater treatment process, the Orange County Sanitation District (OCSD) does not primarily treat wastewater in open-air facultative lagoons. OCSD's wastewater treatment is a tertiary-treated wastewater. OCSD's anerobic processes are enclosed in an anerobic digester that generates electricity to offset the plant's energy use. As a result, modeling in CalEEMod is conservative for OCSD's facilities and correctly adjusts the wastewater percentages to reflect the treatment processes of OCSD's facilities.

R6-39 The measures referenced by the Commenter are the South Coast AQMD's requirements under Rule 403, *Fugitive Dust*. For justification regarding limiting vehicle speed to 15 miles per hour, please see South Coast AQMD Rule 403, Table 2 for Unpaved Roads. The percent reductions are based on the Mitigation Measures and Control Efficiencies documented by South Coast AQMD online: http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/mitigation-measures-and-control-efficiencies: CalEEMod clean paved road percent mitigation module is based on use of street sweepers on paved public roads, which is required under Rule 403. Therefore, we disagree with the Commenter that this measure does not apply to the project, as street sweepers would eliminate track-out on public roads during construction activities. For justification regarding 9 percent particulate matter (PM) reduction on a public road from South Coast AQMD Rule 1186, please see South Coast AQMD Fugitive Dust Mitigation Measures Table XI-C.

R6-40 See response to Comment R6-39. The measures referenced by the Commenter are the South Coast AQMD's requirements under Rule 403, *Fugitive Dust*, and the percent reductions are based on the control efficiencies document by South Coast AQMD.

R6-41 The water module of CalEEMod is based on the Pacific Institute's 2003 water generation rates. Since this was published, California has implemented several requirements to reduce per capita water use and increase water efficiency in California. For example, CALGreen requires use of low-flow fixtures in bathrooms, kitchen, toilets, and showers installed in new development (see Section 5.303, Indoor Water Use; outdoor water use is covered under Section 5.304). CALGreen also requires older non-compliant fixtures to be replaced during building remodels. Therefore, incorporation of water-related operational mitigation measures was included in accordance with CALGreen water efficiency and conservation provisions for plumbing fixtures.

R6-42 See response to Comment R6-35. As Tier 4 emissions standards were phased-in between 2008 through 2015, construction equipment with engines that meet Tier 4 emissions are readily available. Incorporation of this mitigation measure would reduce NOx emissions below the South Coast AQMD threshold and would therefore be feasible. Additional mitigation measures identified by the Commenter (see responses R6-51 through R6-63) would not be required.

R6-43 The Draft EIR evaluates the proposed project's potential to result in physical impacts to the environment. Pursuant to the *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369, impacts of the environment on the proposed project are not CEQA impacts. The primary driver of health risk is diesel particulate matter (DPM), which is primarily associated with diesel trucks. As identified in Impact 5.2-5, the proposed project would not result in a substantial increase in concentrations of air pollutants as the project does not generate a substantial number of trucks or stationary sources of emissions onsite. Consequently, the proposed project would not exacerbate existing environmental hazards. See response to Comments R6-10 and R6-11.

Following option of the Office of Environmental Health Hazard Assessment (OEHHA) 20015 guidance document, South Coast AQMD provided guidance to lead agencies to identify when it is appropriate to conduct a construction health risk assessment (HRA). Based on communication with South Coast AQMD, a construction HRA is not necessary if localized emissions (based on the screening-level localized significance threshold [LST] analysis) is less than significant. Nonetheless, to address the quantitative analysis provided by the Commenter, a construction HRA has been conducted and has been included in Volume II, Appendix B2 and incorporated into Section 5.2, *Air Quality*, in the revised Draft EIR (see Volume I of this FEIR). As identified in Appendix B2, the incremental cancer risk of 2.6 in a million was determined for residents to the west of the project site. Additionally, the chronic non-cancer hazard index of 0.007 was calculated for nearby residents. Since this modeling, the proposed project has been reduced further, and therefore, the HRA modeling is conservative. The results of the HRA in Appendix B2 (Volume II) and Section 5.2 of the revised Draft EIR (Volume I of this FEIR) further substantiate that construction emissions would not pose a threat to sensitive receptors without mitigation and project-related construction health impacts would be less than significant and no additional mitigation measures are necessary.

R6-44 See response to Comment R6-43. The results of the HRA in Appendix B2 (Volume II) and Section 5.2 of the revised Draft EIR (Volume I of this FEIR) further substantiate that construction emissions would not pose a threat to sensitive receptors and project-related construction health impacts would be less than significant and no additional mitigation measures are necessary.

R6-45 See response to Comment R6-43 in regard to construction-related health risk impacts to nearby sensitive receptors. As identified in Impact 5.2-5, the proposed project would not result in a substantial increase in concentrations of air pollutants as the project does not generate a substantial number of trucks or stationary sources of emissions onsite. Consequently, the proposed project would not exacerbate existing environmental hazards, and would not be a substantial sources of diesel particulate matter (DPM) from trucks during project operation.

R6-46 See response to Comment R6-43.

R6-47 See response to Comment R6-43 regarding construction-related health risk impacts to nearby sensitive receptors. The health risk analysis provided in Appendix B2 of this FEIR utilized a refined air dispersion modeling approach (using AERMOD), whereas a screening-level HRA was prepared by the Commenter's scientists. Refined models such as AERMOD require more site-specific information and yield greater characterization of the project and more representative results. Therefore, the HRA performed by PlaceWorks' registered engineer, and presented in Volume II, Appendix B2 of the FEIR is accurate.

The screening-level operational HRA prepared by the Commenter's scientists (Exhibit D of this Comment Letter) incorrectly correlates exhaust PM10 (coarse particulate matter) emissions generated by project operational emission sources with DPM emissions. The Commenter's scientists screening-level HRA calculates DPM emissions for diesel-fueled trucks associated with the retail/residential project. On page 18 of the Commenter's HRA, the DPM exhaust emission rate from the operational phase of the project is based on the exhaust PM10 annual emission rate from CalEEMod annual model runs. However, the exhaust PM10 emissions from CalEEMod do not directly correlate to DPM from operational emission sources. For instance, over 85 percent of operation-generated exhaust PM10 from mobile sources would be from gasoline-fueled vehicles (i.e., passenger cars). Gasoline-fueled vehicles would not generate diesel particulate matter, because diesel fuel is not part of the combustion process. For these reasons, the exhaust PM10 emissions from the operational CalEEMod annual output cannot be directly correlated to DPM for the purposes of an HRA.

R6-48 Comment describes methodology used to determine DPM concentrations, and is noted.

R6-49 Comment describes methodology used to calculate health risks from determined DPM concentrations, and is noted.

R6-50 See responses to Comment R6-43 and R6-47. The results of the construction HRA in Volume II, Appendix B2 and Section 5.2 of the revised Draft EIR (Volume I of the FEIR) further substantiate that construction emissions would not pose a threat to sensitive receptors and project-related construction health impacts would be less than significant and no additional mitigation measures are necessary. Additionally, the proposed project would not exacerbate existing environmental hazards, and would not be a substantial sources of DPM from trucks during project operation.

R6-51 As seen in the response for Comments R6-23 through R6-28, the existing conditions model would result in conservative net emissions from buildout of the project. Additional mitigation measures would not be required.

R6-52 As Tier 4 emissions standards were phased-in over 2008 through 2015, construction equipment with engines that meet Tier 4 emissions would be readily available. Incorporation of this mitigation measure would reduce the net GHG emissions below the South Coast AQMD bright-line threshold and would therefore be feasible. Additional mitigation measures would not be required.

R6-53 See response to Comment R6-52. Mitigation Measure AQ-1 requires construction equipment 50 horsepower and higher to be Tier 4, which means construction equipment used onsite would be newer and have lower emission rates than older equipment that needs to be repowered to achieve the latest emissions standards.

R6-54 See response to Comment R6-52 and R6-53. Mitigation Measure AQ-1 requires construction equipment 50 horsepower and higher to be Tier 4 equipment. Hybrid and alternative fueled equipment is less proliferated through California's fleets than Tier 4 equipment.

R6-55 See response to Comment R6-52. As identified in Tables 5.2-10 and 5.2-13, the proposed project would not exceed the South Coast AQMD regional or localized significance thresholds, respectively, for particulate matter. Therefore, use of after-market control technologies such as Diesel Particulate Filters (DPF) would not reduce the project's potentially significant impacts.

R6-56 See response to Comment R6-52 and R-54. Most heavy construction equipment over 50 horsepower is not yet available in electric or hybrid models. Therefore, this measure is not feasible. Furthermore, Mitigation Measure AQ-1 requires use of Tier 4 construction equipment for equipment over 50 horsepower, which would reduce NOx emissions below the South Coast AQMD significance threshold. Calculating fuel burned per hour is not necessary. Section 5.4, *Energy*, provides an estimate of fuel used during construction.

R6-57 See response to Comment R6-52. As identified in Mitigation Measure AQ-1, the construction contractor is required to maintain a list of operating equipment onsite for verification by the City. This list is required to identify the makes, models, and number of construction equipment onsite to ensure full compliance with this measure. Identifying hourly meter readings and fuel use is not needed to comply with the requirement to utilize newer, Tier 4 equipment.

R6-58 See response to Comment R6-52 and R6-57. As identified in Mitigation Measure AQ-1, the construction contractor is required to maintain a list of operating equipment onsite for verification by the City. This list is required to identify the makes, models, and number of construction equipment onsite to ensure full compliance with this measure.

R6-59 See response to Comment R6-52 and R6-57. Mitigation Measure AQ-1 requires construction equipment 50 horsepower and higher to be Tier 4 equipment. Therefore,

this additional mitigation measure, which is not even be as stringent as Mitigation Measure AQ-1, would not be required to result in less than significant impacts during construction.

R6-60 See response to Comment R6-52 and R6-55. As identified in Tables 5.2-10 and 5.2-13, the proposed project would not exceed the South Coast AQMD regional or localized significance thresholds, respectively, for particulate matter. As a result, monitoring the opacity of emissions generated is not needed. Furthermore, Mitigation Measure AQ-1 requires construction equipment 50 horsepower and higher to be Tier 4 equipment, which would reduce NOx emissions below the South Coast AQMD significance threshold.

R6-61 See response to Comment R6-52.

R6-62 See response to Comment R6-52.

R6-63 See response to Comment R6-34. As identified by the Commenter in R6-34, South Coast AQMD Rule 1113 requires flat coats to have a VOC rating of no higher than 50 g/L of VOC content. Modeling for painting is based on CalEEMod defaults, which assumes 100 g/L of VOC content for nonresidential painting applications. Therefore, modeling of VOC emissions is conservative and would not warrant additional mitigation, such as use of spray equipment with greater transfer efficiencies. It should be noted that for the commercial and residential painting applications, construction contractors would likely utilize the high-volume, low-pressure spray applications as a best practice.

R6-64 Comment is the provided screening-level (AERSCREEN) model output files used in the operational HRA prepared by the Commenter's scientists (Exhibit D of this Comment Letter). See response to comment R6-43 through R6-50.

R6-65 The City of Brea reviewed and approved the traffic scope of work for the Brea Mall Mixed Use Project Traffic Circulation Analysis (see Volume II, Appendix I1 of the FEIR). See also responses R6-66 through R6-92 regarding individual comments provided by the Commenter. It should be noted that since the EIR was circulated, Senate Bill 743 (SB 743) went into effect. Under the new Guidelines, vehicle miles traveled (VMT)-related metric(s) that evaluate the significance of transportation-related impacts under CEQA for development projects, land use plans, and transportation infrastructure projects are required beginning on July 1, 2020. The legislation does not preclude the application of local general plan policies, zoning codes, conditions of approval, or any other planning requirements that require evaluation of LOS, but these metrics may no longer constitute a basis for determining transportation impacts under CEQA. The City of Brea adopted VMT metrics for CEQA development projects in October 2020. The Final EIR includes changes to Section 5.12, *Transportation*, to reflect the new VMT thresholds adopted by the City (see also FEIR, Volume II, Appendix I2). In addition, a revised Transportation Analysis is provided (see FEIR, Volume II, Appendix I1).

See also response to Comment R6-7. The project study area was defined based on coordination with the City and the Applicant. Based on the location of the project on the southwest corner of the 73.8-acre Brea Mall site, it was determined that the majority of project-related trips would occur at the entrance on Randolph Avenue and southerly entrance at State College Boulevard. Given traffic at the mall during peak hours and the distance of the northerly entrance to the Brea Mall "ring road" off Birch Street and the two northerly entrances to the Brea Mall "ring road" on State College, it was determined that these other driveways would not be utilized as the primary access for project-related trips to commercial and residential uses at the southwest portion of the mall. Since these driveways would not serve as the primary access for the project, the project is not anticipated to alter the existing patterns at the other Brea Mall driveways and therefore further analysis at the other Brea Mall driveways is not needed.

R6-66 See also response to Comment R6-7. Section 10.2, focused Project Driveway Synchro Queuing Analysis, of the Traffic Circulation Analysis (see Appendix I1, Volume II of the FEIR) and Section 5.12, Transportation (see Volume I of the FEIR), which indicate that the outbound queues at the project driveways along State College Boulevard and Randolph Avenue are anticipated to queue through the internal intersection. However, the internal intersections are designed as all-way stops which allows for adequate traffic control to minimize conflicts and congestion. Therefore, no changes to the EIR are needed. See also response to Comment R6-65 regarding Public Resources Code § 21099(b)(2). R6-67 See also response to Comment R6-65 regarding SB 743. The vast majority of the counts, including the weekday counts, were taken in May when school was in session. The City requested additional counts in June and August to account for weekend (Saturday) traffic conditions during the summer conditions when the Brea Mall generates higher traffic demands. Traffic counts conducted during the peak holiday season are not necessary for evaluating the environmental impacts of the project. Peak holiday traffic only occurs during the holiday season and would not represent typical operations for the majority of the year at the mall (see discussion on page 5.12-31 of the Draft EIR). The analysis presented in the EIR represents the worst-case probable increase in trips due to the project on a weekday and weekend. Peak holiday flows at the mall, which already occur under existing conditions, will be further controlled by a City-required parking management plan (see plans, programs, and policies [PPP] TRAF-3). See also response to Comment R6-65 regarding Public Resources Code § 21099(b)(2).

R6-68 Comment noted. State College Boulevard at Imperial Highway operates under existing conditions at LOS E during Saturday midday conditions. Since the EIR was circulated, Senate Bill 743 (SB 743) went into effect. Under the new Guidelines, VMT-related metric(s) that evaluate the significance of transportation-related impacts under CEQA for development projects, land use plans, and transportation infrastructure projects are required beginning on July 1, 2020. The legislation does not preclude the application of local general plan policies, zoning codes, conditions of approval, or any other planning

requirements that require evaluation of LOS, but these metrics may no longer constitute a basis for determining transportation impacts under CEQA. The City of Brea adopted VMT metrics for CEQA development projects in October 2020. The Final EIR includes changes to Section 5.12, *Transportation*, to reflect the new VMT thresholds adopted by the City (see also FEIR, Volume II, Appendix I2). In addition, a revised Transportation Analysis is provided (see FEIR, Volume II, Appendix I1).

R6-69 The project trip generation and internal trip capture was defined based on coordination with the City. Generation equations and/or rates used in the traffic forecasting procedure are based on the 10th edition of *Trip Generation* by the Institute of Transportation Engineers (ITE) and empirical trip generation rates developed from studies of existing Lifetime Fitness facilities. The methodology for developing trips was heavily vetted with the City of Brea as part of the scoping process. The resort-inspired lifestyle fitness center is a very unique use that is not comparable to a typical health club facility as documented in the ITE Trip Generation Manual. Therefore, the data utilized in the EIR is specific to the use and anticipated tenant. Therefore, no changes to the EIR are needed

R6-70 See response to comment R6-69. The methodology for developing trips had been heavily vetted with the City of Brea as part of the scoping process. The internal capture utilized is based on the ITE excel spreadsheet prepared as part of the National Cooperative Highway Research Program (NCHRP) Report 684. Therefore, no changes to the Traffic Impact Analysis in Volume II, Appendix I1, are needed

R6-71 As identified in response to Comments R6-69 through R6-70, the analysis presented in the EIR represents the worst-case probable increase in trips due to the project on a weekday and weekend. Pursuant to the *North County Advocates v. City of Carlsbad* (2015) 241 Cal.App. 4th 94, lead agencies have discretion to consider conditions over a range of time periods to account for a temporary lull or spike in operations. As with any regional shopping center, the Brea Mall experiences periodic transitions in tenants and occupancy. The Sears department store was in continuous operation from 1977 until it was vacated in April 2018. Therefore, the EIR considers full occupancy associated with historical operations of the retail space vacated by Sears as the baseline for the transportation analysis. While the first floor of the Sears department store is now under a short-term lease by another retail store, the second floor of the Sears department store is currently still vacant. Since the above-described vacant space was not occupied on the dates that traffic counts were conducted for this study (i.e., weekday AM and PM peak period counts and Saturday midday peak period counts), and to account for trips corresponding with the mall's entitled and historically occupied square footage, trip generation for the mall's vacant square footage was estimated based on the application of ITE rates/equations. These trips were then assigned and added to the raw traffic counts collected at study intersections to establish the baseline from which the project could be assessed. Therefore, no changes to the EIR are needed.

R6-72 The Orange County Transportation Analysis Model (OCTAM) model does not have a Saturday model. Therefore, to forecast Saturday Midday Year 2040 traffic conditions the following methodology was applied. A relationship between existing traffic counts, PM peak hour and Saturday midday peak hour was calculated and applied to the modeled Year 2040 PM volumes to develop Year 2040 Saturday midday volumes. Below shows the equation used to forecast Year 2040 Saturday Midday volumes:

2040 Saturday Midday = 2040 PM (Existing Saturday Midday ÷ Existing PM)

R6-73 See response to Comment R6-72.

R6-74 See Table 11-2 within the Traffic Circulation Analysis (Volume II, Appendix I1, of the FEIR) which identifies that the project would be responsible for 19.51 percent funding the recommended improvement at State College Boulevard at Imperial Highway in accordance with the City's local transportation policies. However, under the new Guidelines, LOS metrics may no longer constitute a basis for determining transportation impacts under CEQA. The City of Brea adopted VMT metrics for CEQA development projects in October 2020. The Final EIR includes changes to Section 5.12, *Transportation*, to reflect the new VMT thresholds adopted by the City (see also FEIR, Volume II, Appendix I2). In addition, a revised Transportation Analysis is provided (see FEIR, Volume II, Appendix I1). As a result, impacts to State College Boulevard at Imperial Highway no longer constitutes a significant impact under CEQA. The project is required to pay development impact fees to the City of Brea pursuant to the City's AB 1600 Transportation Improvement Nexus Program (Ordinance 966) (see PPP TRAF-1).

Transportation-related safety impacts are addressed separately under Impact 5.12-3 of the revised Draft EIR (Volume I of this FEIR). CEQA Guidelines Section 15364 identifies that a lead agency's authority to impose mitigation measures must be based on legal authority other than CEQA. Pages 5.12-113 of the revised Draft EIR (Volume I of the FEIR) identifies several engineering improvements that could be implemented by Caltrans to lessen level of service impacts of the project. While from an engineering perspective these measures may be feasible, under CEQA these measures are infeasible since the responsibility to implement these measures is not within the sole jurisdiction of the City (CEQA Guidelines Section 15091(a)(2)). As a result, the EIR identifies transportation-related safety impacts to Caltrans facilities as a significant unavoidable impact of the project.

See also response to Comment R6-65 regarding Public Resources Code § 21099(b)(2).

R6-75 See response to Comment R6-74. Based on the revised traffic study, which analyzed the project as revised, Randolph Avenue at Imperial Highway is no longer considered an impacted location. Therefore, improvements at this intersection are no longer recommended or required. However, the project is required to pay development impact

fees to the City of Brea pursuant to the City's AB 1600 Transportation Improvement Nexus Program (Ordinance 966) (see PPP TRAF-1).

R6-76 See response to Comment R6-74. See Table 11-2 within the Traffic Circulation Analysis, which identifies that the project would be responsible for funding 19.51 percent of the recommended improvement at State College Boulevard at Imperial Highway. The project is required to pay development impact fees to the City of Brea pursuant to the City's AB 1600 Transportation Improvement Nexus Program (Ordinance 966) (see PPP TRAF-1).

R6-77 See response to Comment R6-74 and R6-76.

R6-78 See response to Comment R6-74 and R6-76. See Table 11-2 and 11-3 within the Traffic Circulation Analysis (see Volume II, Appendix I1 in the FEIR), which identifies one location where the project would be responsible to pay its fair share towards the recommended improvements.

R6-79 See response R6-65. Since the three other driveways would not serve as the primary access for the project, they are not evaluated as part of the project's study area.

R6-80 The queuing methodology is consistent with the Caltrans Highway Design Manual for Intersections at Grade, page 400-9. This methodology has been accepted and used on other projects in the nearby area that had traffic traveling along Imperial Highway and SR-57; and have been reviewed with Caltrans staff. Therefore, the queuing approach presented in the EIR is considered adequate and no changes are needed.

R6-81 See response to Comment R6-80.

R6-82 See response to Comment R6-74 and R6-80. See Section 5.12, *Transportation*, of the revised Draft EIR (Volume I of the FEIR). As stated in the EIR, the queues would be improved with the recommended improvements at State College Boulevard at Imperial Highway in conjunction with the recommended improvements at along Imperial Highway at the SR-57 southbound (SB) on-ramp (see Section 9.0 of the Traffic Circulation Analysis).

It should also be noted that the westbound right-turn lane has constraints that does not allow for any feasible improvements to be implemented, therefore, the queues will continue to exceed the turn pocket.

R6-83 See response to Comment R6-74 and R6-78.

R6-84 See response to Comment R6-74 and R6-78. Since the EIR was circulated, Senate Bill 743 (SB 743) went into effect and LOS metrics may no longer constitute a basis for determining transportation impacts under CEQA. The City of Brea adopted VMT metrics for CEQA development projects in October 2020. The Final EIR includes changes to Section 5.12, *Transportation*, to reflect the new VMT thresholds adopted by the City (see also FEIR, Volume II, Appendix I2). In addition, a revised Transportation

Analysis (see FEIR, Volume II, Appendix I1) was prepared. As a result, congestion-related impacts to intersection #12, Brea Boulevard at Imperial Highway, and intersection #13, Randolph Avenue at Imperial Highway, are no longer identified as significant unavoidable impacts. As documented in Section 5.12 of the revised Draft EIR (Volume I of the FEIR), Impact 5.12-1 would be less than significant.

R6-85 See response to Comment R6-74 and R6-78. Since the EIR was circulated, Senate Bill 743 (SB 743) went into effect and LOS metrics may no longer constitute a basis for determining transportation impacts under CEQA. As a result, congestion-related impacts to intersection #12, Brea Boulevard at Imperial Highway, intersection #10, Harbor Boulevard at Imperial Highway, intersection #13, Randolph Avenue at Imperial Highway, intersection #22, SR-57 northbound ramps at Imperial Highway, and intersection #17, Associated Road at Imperial Highway, are no longer identified as significant unavoidable impact. As documented in Section 5.12 of the revised Draft EIR (Volume I of the FEIR), Impact 5.12-1 would be less than significant.

R6-86 See response to Comment R6-74 and R6-78.

R6-87 Comment noted. Review of the footnote on Tables 11-2 and 11-3 of the Traffic Circulation Analysis (see Volume II, Appendix I1 of the FEIR) shows that the recommended approach by LLG of dividing Column 2 by (Column 3 minus Column 1) is what was implemented in the Traffic Circulation Analysis. Therefore, no changes to the Traffic Circulation Analysis are recommended

R6-88 Comment noted. See response to Comment R6-87.

R6-89 See response to Comment R6-80.

R6-90 Since the EIR was circulated, SB 743 went into effect and LOS metrics may no longer constitute a basis for determining transportation impacts under CEQA. As a result, CMP Analysis no longer required by the City and thus has been removed from the Traffic Study.

R6-91 See response to Comment R6-90.

R6-92 The analysis of collision history was included at the request of Caltrans. Caltrans has identified that the intersection of State College Boulevard at Imperial Highway experiences higher numbers of collisions than the state average under existing conditions and the project would cumulatively contribute to these existing safety hazards. These collisions are due to making erratic lane changes to try and enter the SR-57 SB on-ramp along Imperial Highway. Engineering improvements on Imperial Highway and SR-57 were identified in consultation with Caltrans to reduce existing and the project's cumulative contribution to safety hazards. The focused safety analysis included all 122 collisions at State College Boulevard at Imperial Highway and then determined of the 122 collisions which ones could be correctable via the implementation of the recommended

improvements on Imperial Highway and SR-57. What was determined is that 15 of the collisions at State College Boulevard at Imperial Highway were considered correctable as noted on Page 75 of the Traffic Circulation Analysis. While from an engineering perspective these measures are feasible, under CEQA these measures are identified as not feasible since the responsibility to implement these measures is not within the sole jurisdiction of the City (CEQA Guidelines Section 15091(a)(2)). As a result, the EIR identifies transportation-related safety impacts to Caltrans facilities as a significant unavoidable impact of the project.

R6-93 The City of Brea Municipal Code Chapter 8.20, *Noise Control*, sets exterior noise standards for residential properties. The Municipal Code defines residential property as "a parcel of real property which is developed and used either in part or in whole for residential purposes, other than transient uses such as hotels and motels." Section 8.20.090 applies the exterior noise standards to the schools, hospitals and churches. The Municipal Code does not define commercial properties, such as a spa or restaurant, as noise or vibration sensitive uses. Furthermore, the project would comply with the City's allowable hours of construction; therefore, exempting construction noise from the aforementioned exterior noise standards at residential properties. The FTA residential criterion of 80 dBA Leq was used in the Draft EIR to assess construction impacts at nearby sensitive receptors. It should be noted that the FTA has no discretionary authority over this project and the criterion of 80 dBA Leq was conservatively adopted for the Draft EIR analysis at noise-sensitive uses (as defined by the Municipal Code). Furthermore, The Spa at the Glen is a tenant of the Simon Property Group located within the interior of the Brea Mall. Although there are no CEQA-related noise impacts, Simon Property Group plans to coordinate with mall owners and tenants during construction activity to address construction noise and vibration concerns of mall property owners and tenants.

R6-94 The Municipal Code vibration limit regulates vibration from the *operation* of a use ("every use shall be so *operated*") and was conservatively applied in the Draft EIR to sensitive receptors in the project vicinity, such as residences and the Grace Covenant Community Church, which could be impacted by project construction (italics added for emphasis). Project construction vibration impacts were found to be less than significant at these sensitive uses. Since the Municipal Code does not consider commercial properties sensitive receptors, the vibration limit does not apply. As discussed in the Draft EIR, there are no operational sources of substantial groundborne vibration associated with the project. Furthermore, The Spa at the Glen is a tenant of the Simon Property Group located within the interior of the Brea Mall. Although there are no CEQA-related vibration impacts, Simon Property Group plans to coordinate with mall owners and tenants during construction activity to address construction noise and vibration concerns of mall property owners and tenants. Thus, the EIR discloses potential locations where potential noise and vibration impacts would occur and no mitigation measure are needed.