DRAFT
ENVIRONMENTAL IMPACT REPORT (EIR No. 628)
FOR THE
BREA BOULEVARD CORRIDOR IMPROVEMENT PROJECT
SCH #2017051005

VOLUME 2 OF 4
(Appendices)

Prepared for:

Orange County Public Works
601 N. Ross Street
Santa Ana, CA 92701
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Prepared by:

AECOM
999 Town & Country Road
Orange, CA 92868
Jerry Flores, Project Manager

November 2022

TABLE OF CONTENTS
VOLUME 2 OF 4

APPENDICES (Volume 2 of 4)

A 2017 Notice Of Preparation (NOP), Initial Study, and Distribution List
B 2017 NOP/IS Written Comments Letters and Cards
C 2019 Updated Notice Of Preparation (NOP), Initial Study, and Distribution List
D 2019 Updated NOP/IS Written Comments Letters and Cards
E Air Quality and Greenhouse Gas Emissions Technical Report
F Biological Technical Report
G Aquatic Resource Delineation Report
H Wildlife Movement Study
I Cultural, Historical, and Paleontological Resources Assessment

APPENDICES (Volume 3 of 4)

J Geotechnical Engineering Reports

APPENDICES (Volume 4 of 4)

K Energy Impact Analysis
L Hazardous Materials Assessment
M Final Design Hydraulic Study
N Noise Impact Analysis
O Traffic Impact Analysis Report
P Alternatives Analysis Memos

APPENDICES

APPENDIX A
2017 NOTICE OF PREPARATION (NOP), INITIAL STUDY, AND DISTRIBUTION LIST

OC PublicWorks
Integrity, Accountability, Service, Trust
Shane L. Silsby, Director

NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT AND NOTICE OF A PUBLIC SCOPING MEETING

DATE: May 2, 2017
SUBJECT: Notice of Preparation of a Draft Environmental Impact Report (EIR No. 628) and Public Scoping Meeting
PROJECT: Brea Canyon Road Widening Project
APPLICANT: County of Orange, OC Public Works

Public Scoping Meeting: The County will host a public scoping meeting to be held as noted below to provide a description of the project and to solicit comments relative to the content of the information to be analyzed in the Draft Environmental Impact Report (Draft EIR).

Date: May 24, 2017
Time: 6:00 p.m. to 8:00 p.m.
Location: Mariposa Elementary School Cafeteria
1111 West Mariposa Drive
Brea, CA 92821
(see attached map)

POSTED
MAY 02 2017
HUGH NGUYEN, CLERK-RECORDER
BY: NT DEPUTY

Public input regarding the appropriate topics for analysis to be included within the EIR is being sought. In order for your concerns to be incorporated into the Draft EIR, we need to know your views as to the scope and content of the environmental information in connection with the Brea Canyon Road Widening Project (Project). Pursuant to CEQA Guidelines Section 15082(b), all comments must be received as soon as possible but ***not later than 30 days after receipt of this notice.*** The comment period for this Notice is May 2, 2017 to June 2, 2017. You may provide your comments at the Scoping Meeting or by submitting them in writing to the address at the bottom of this Notice.

Under CEQA Guidelines Section 15060(d), the County of Orange, as lead agency, has determined that an Draft EIR would be required. Under CEQA Guidelines Section 15063(c)(3), the Initial Study prepared for the Project will assist in focusing the Draft EIR on the effects determined to be significant. Initial Study IP 17-046is attached to this Notice. Upon completion of the Draft EIR, that document will be made available for public review and comment. There will be public notice regarding its availability at that time. Following the public review period for the Draft EIR, responses to all public and public agency comments received will be prepared and the project will be scheduled for a noticed public hearing before the Orange County Planning Commission.

Project Description and Location: The Project location is an approximately 1.75-mile segment of Brea Boulevard/Brea Canyon Road, between Canyondale Drive in the City of Brea to the south and through unincorporated Orange County to the Orange County/Los Angeles County boundary line to the north. Refer to the attached figures.

The OCPW has identified the need to widen Brea Boulevard/Brea Canyon Road (hereafter referred to as Brea Canyon Road) consistent with the Orange County Master Plan of Arterial Highways (MPAH). The

Brea Canyon Road Widening Project (Project) would be located partially in the City of Brea, from Canyondale Drive to the north City limit, and partially in unincorporated Orange County, from the north City limit to the Orange County/Los Angeles County boundary line, a total length of approximately 9,265 linear feet or 1.75 miles.

The Project is intended to address congestion during the A.M. and P.M. peak hours and is expected to enhance the Level of Service (LOS) from an existing LOS F to LOS A, substantially improving traffic flow through the Brea Boulevard/Brea Canyon area. Additionally, the Project is intended to address safety by improving the design of existing curves within the project limits and reducing the potential for motorist conflicts. This would be accomplished by widening Brea Canyon Road from two to four lanes (two lanes each direction, divided by median barrier/raised median), realigning five existing curves within the project limits, and installing a new traffic signal at the intersection of Brea Canyon Road and Tonner Canyon Road. Widening and safety improvements of the roadway would also require replacing three bridges over Brea Creek, improving and extending various drainage crossings and utility bank crossings, relocating utilities and oilfield-related equipment (e.g., power transmission poles, oil lines, oil wells, telephone duct banks, etc.), replacing the existing traffic signal at Brea Canyon Road and Canyon Country Road, and a substantial roadway slope cut of up to 50 feet or more in height, requiring a high retaining wall. Construction is expected to last approximately 3.5 years in duration and is anticipated to begin in the year 2020/2021.

The Notice of Preparation with Initial Study IP 17-046 is available for review on the County's website. Project information will be available at this web address on an on-going basis and is listed under the 4th District heading: http://www.ocpublicworks.com/ds/planning/projects

If you have any questions or need additional information, please contact Kevin Shannon at (714) 667-1632. Submit written comments to the following email address: Kevin.Shannon@ocpw.ocgov.com. The mailing address is OC Development Services/Planning, 300 N. Flower Street, Santa Ana, CA 92703.

Submitted by: Kevin Shannon 05.02.17

Name: Kevin Shannon, Contract Planner
OC Public Works, OC Development Services/Planning

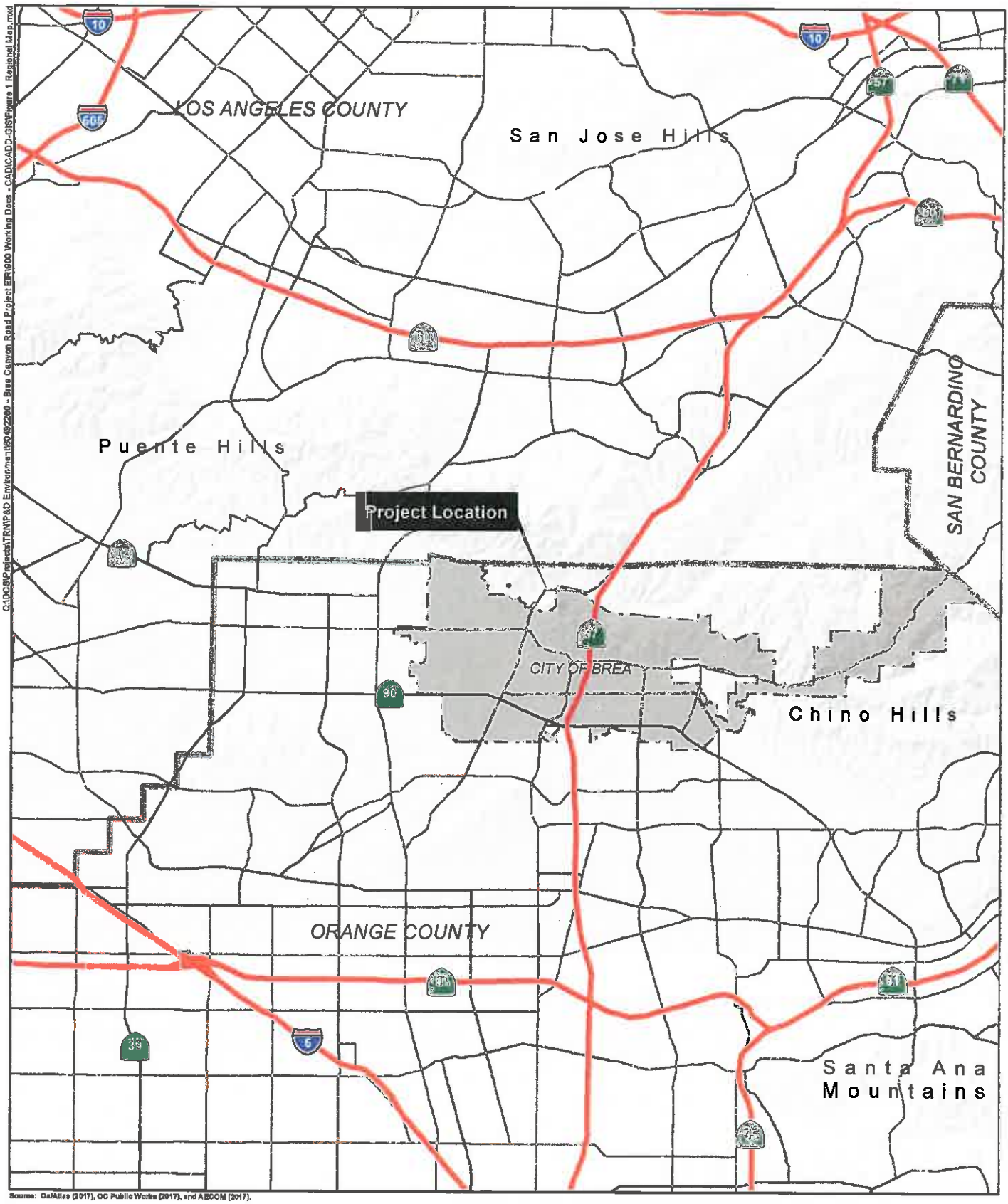
Attachment: CEQA Initial Study IP 17-046
Location Maps

POSTED

MAY 02 2017

HUGH NGUYEN, CLERK-RECORDER

BY: _____ DEPUTY



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MAY 02 2017

HUGH NGUYEN, CLERK-RECORDER

BY: NA DEPUTY

Figure 1
Regional Map

Brea Canyon Road Widening Project

Scale 1 : 12,000
1" = 1,000 feet

0 500 1,000 2,000 3,000 Feet

Figure 2
Vicinity Map

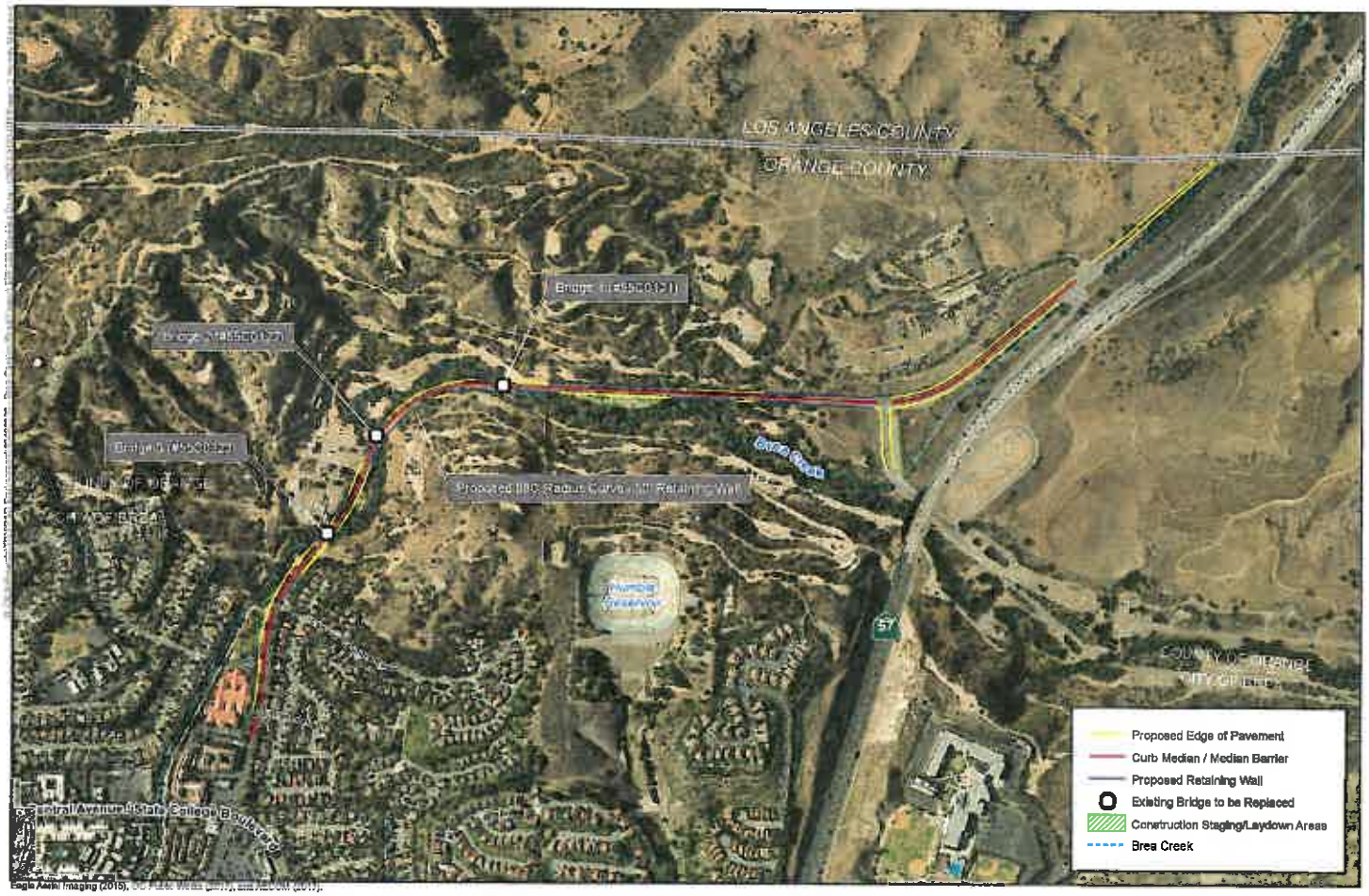
Brea Canyon Road Widening Project

POSTED

MAY 02 2017

HUGH NGUYEN, CLERK-RECORDER

BY: ND DEPUTY



Scale 1 : 12,000
1" = 1,000 feet

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Figure 3
Proposed Project

Brea Canyon Road Widening Project

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MAY 02 2017

HUGH NGUYEN, CLERK-RECORDER

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MAY 02 2017

HUGH NGUYEN, CLERK-RECORDER

BY: NA DEPUTY

Mariposa Elementary School

Brea Canyon Road Widening Project
Initial Study (IP 17-046)

ENVIRONMENTAL CHECKLIST

POSTED

MAY 02 2017

HUGH NGUYEN, CLERK-RECORDER

BY: NA DEPUTY

1. **Project Title:** Brea Canyon Road Widening Project

2. **Lead Agency Name and Address:**

   Orange County Public Works Department/OC Development Services
   300 N. Flower Street, 1st Floor
   Santa Ana, CA 92703-4098

3. **Contact Person and Phone Number:** Hugo Pineda, P.E. (714) 647-3973

4. **Project Location:** An approximately 1.75-mile segment of Brea Boulevard/Brea Canyon Road, between Canyondale Drive in the City of Brea to the south and through unincorporated Orange County to the Orange County/Los Angeles County boundary line to the north. Refer to Figure 1, Regional Map, and Figure 2, Vicinity Map.

5. **Project Sponsor's Name and Address:**

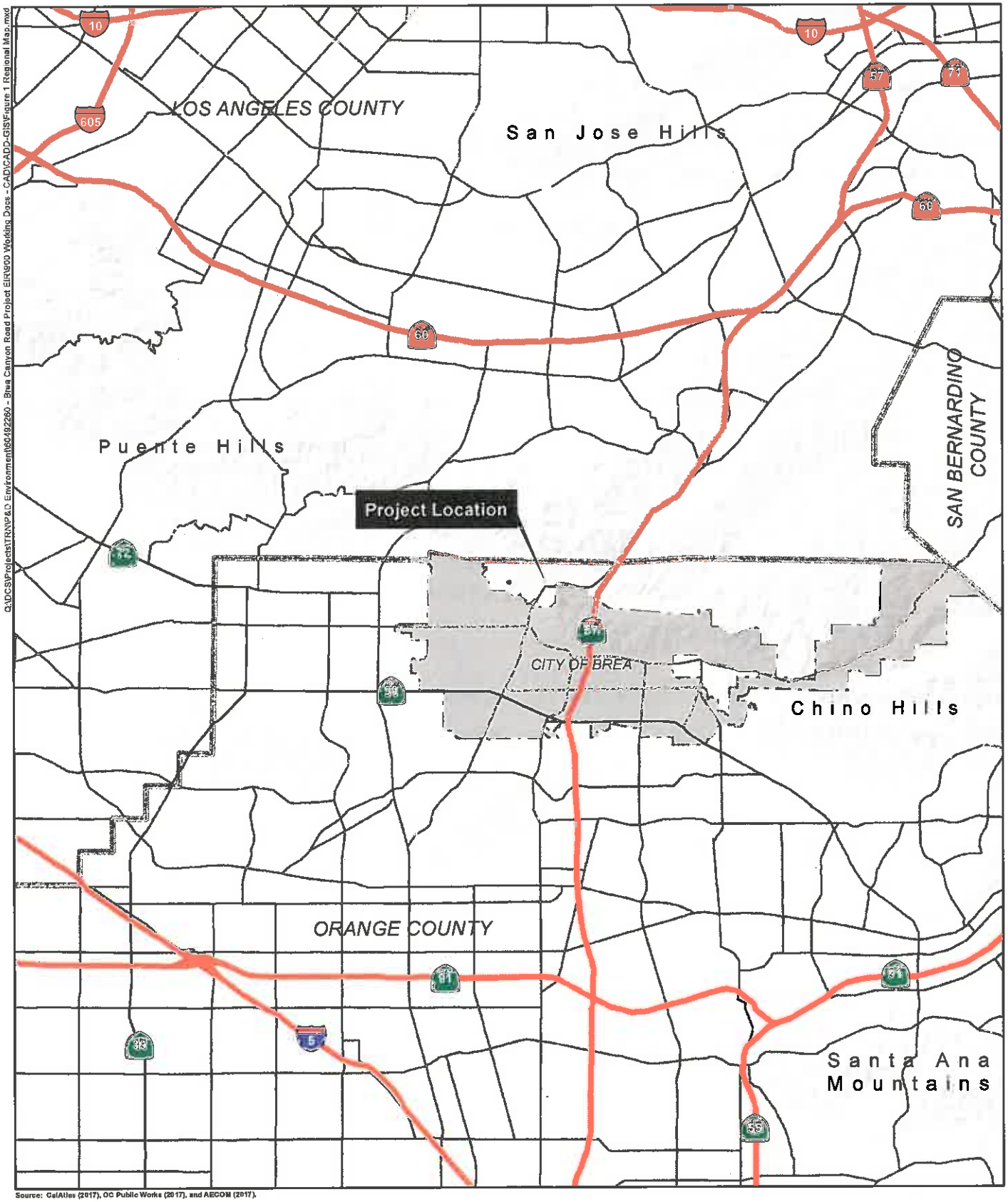
   Orange County Public Works Department/OC Infrastructure Programs
   300 N. Flower Street
   Santa Ana, CA 92703-5000

6. **General Plan Designation:** City of Brea: Low Density Residential, High Density Residential, Hillside Residential, and Natural Open Space; County of Orange: 1B (Suburban Residential).

7. **Zoning:** City of Brea: R-1-H (Single-Family Residential-Hillside), R-2 and R-3 (Multiple Family), and THSP (Tonner Hills Specific Plan); County of Orange: A1 (O) (General Agriculture with Oil Production Overlay) and PC (O) (Planned Community with Oil Production Overlay).

8. **Description of Project:** The Orange County Public Works Department (OCPW) has identified the need to widen Brea Boulevard/Brea Canyon Road (hereafter referred to as Brea Canyon Road) consistent with the Orange County Master Plan of Arterial Highways (MPAH). The Brea Canyon Road Widening Project (Project) would be located partially in the City of Brea, from Canyondale Drive to the north City limit, and partially in unincorporated Orange County, from the north City limit to the Orange County/Los Angeles County boundary line, a total length of approximately 9,265 linear feet or 1.75 miles (project limits); refer to Figure 1, Regional Map, and Figure 2, Vicinity Map.

   The Project is intended to address congestion during the A.M and P.M. peak hours and is expected to enhance the Level of Service (LOS) from an existing LOS F to LOS A, substantially improving traffic flow through the Brea Boulevard/Brea Canyon area. Additionally, the Project is intended to address safety by improving the design of existing curves within the project limits and reducing the potential for motorist conflicts. This would be accomplished by widening Brea Canyon Road from two to four lanes (two lanes each direction, divided by median barrier/raised median), realigning five existing curves within the project limits, and installing a new traffic signal at the intersection of Brea Canyon Road and Tonner Canyon Road.



Source: CalAtlas (2017), OC Public Works (2017), and AECOM (2017).

Scale 1 : 126720
1" = 2 miles

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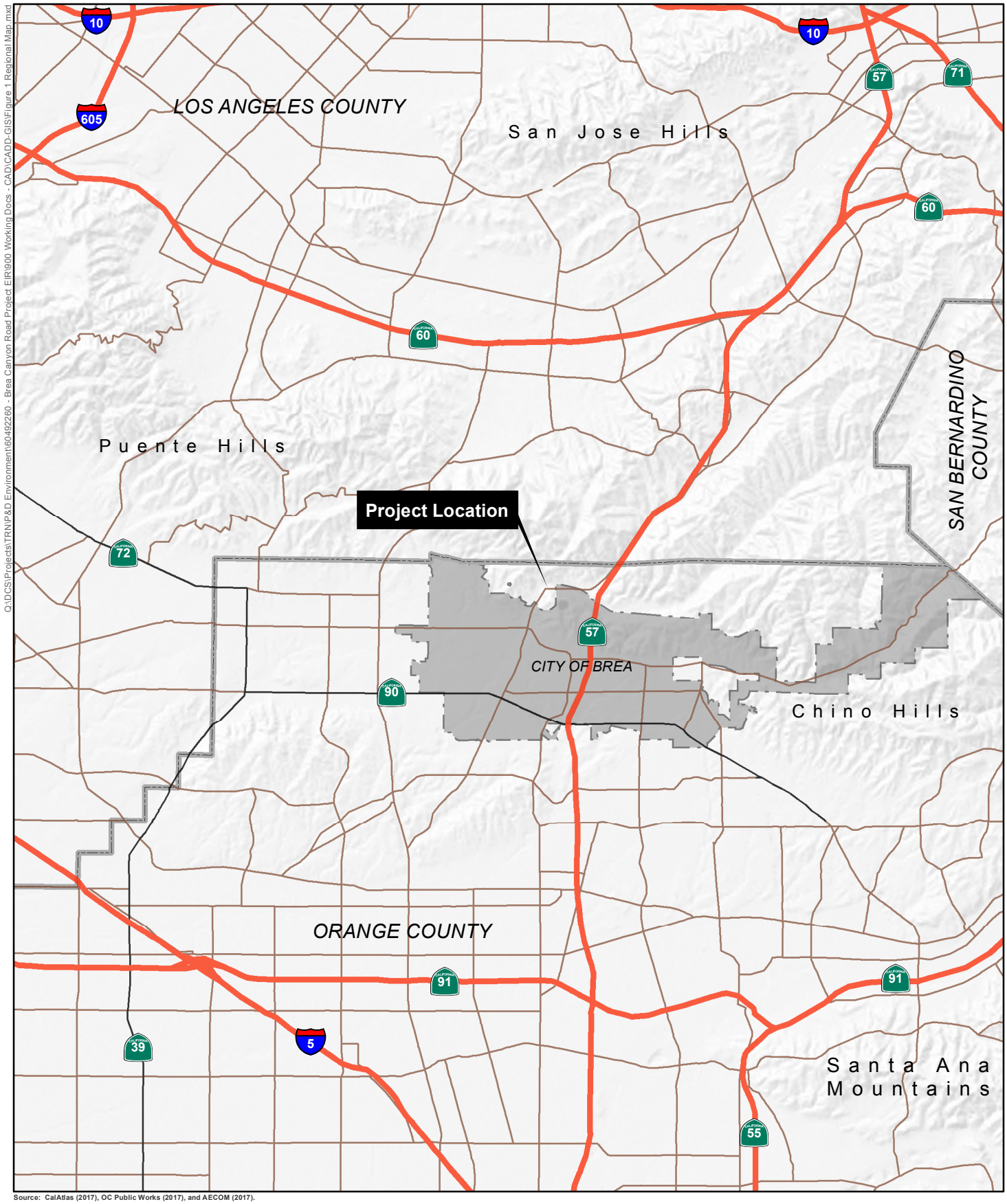
Figure 1
Regional Map

Brea Canyon Road Widening Project



Source: CalAtlas (2017), OC Public Works (2017), and AECOM (2017).

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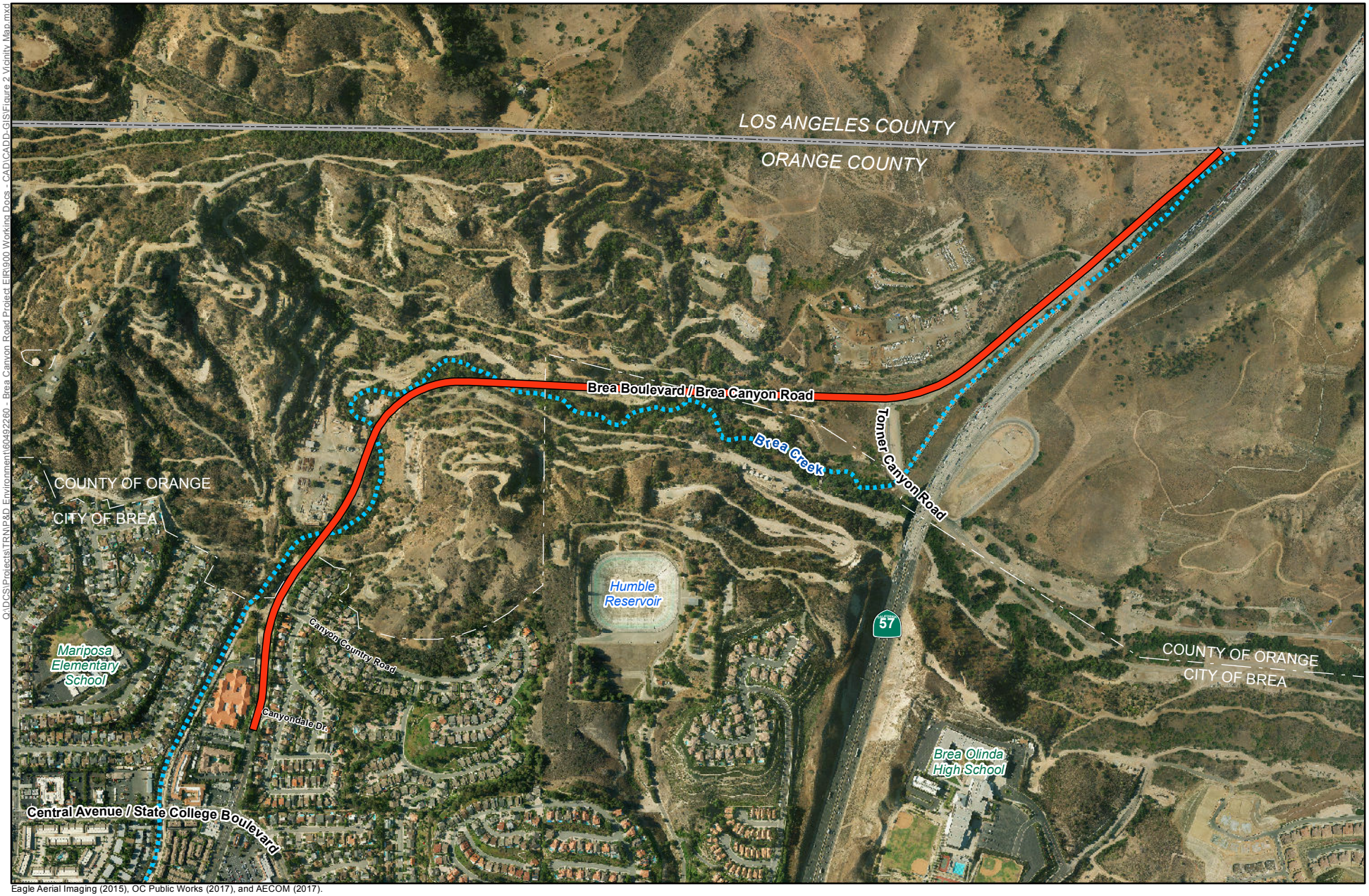
Figure 1
Regional Map



Eagle Aerial Imaging (2015), OC Public Works (2017), and AECOM (2017).

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Scale 1 : 12,000
1" = 1,000 feet

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Figure 2
Vicinity Map

Widening and safety improvements of the roadway would also require replacing three bridges over Brea Creek, improving and extending various drainage crossings and utility bank crossings, relocating utilities and oilfield-related equipment (e.g., power transmission poles, oil lines, oil wells, telephone duct banks, etc.), replacing the existing traffic signal at Brea Canyon Road and Canyon Country Road, and a substantial roadway slope cut of up to 50 feet or more in height, requiring a high retaining wall. Some right-of-way (R/W) acquisition and driveway access point modification (e.g., driveway relocation or reconstruction) would also be required.

EXISTING CONDITIONS

Brea Canyon Road is a 30-foot-wide, two-lane, undivided highway (one lane in each direction) with portions of the roadway having no curb or gutter, and unpaved, earthen shoulders, and with other portions of the roadway improved with curb, gutter, and sidewalk. The posted speed limit is 55 miles per hour (MPH) in the unincorporated portion of the project limits, and 45 MPH in the City of Brea at the southern end of the project limits. Brea Canyon Road has essentially remained intact since the roadway was realigned to its present configuration between 1928 and 1930. The existing R/W varies from 60 to 100 feet wide.

There are approximately five existing horizontal curves (i.e., circular curve transitions between two tangent strips of roadway that allow vehicles to negotiate turns at design speed) within the project limits. All but one of the five horizontal curves have an existing radius curve of 1,000 feet that allow for a comfortable horizontal curve speed of 50 MPH. The one exception has a radius curve of 700 feet and has been tightly aligned in between Brea Creek to the north and a very tall and steep hill to the south.

There are three bridges crossing Brea Creek within the project limits: a double span bridge culvert constructed circa 1929 (Bridge 1 [#55C0121]) and two reinforced concrete bridges constructed circa 1930 (Bridges 2 [#55C0122] and 3 [#55C0123]). In addition to the three bridges there are approximately thirteen existing culvert crossings (for drainage or oil lines or both). It should be noted that portions of Brea Creek have been dedicated into a Scenic Preserve Easement within and under the jurisdiction of the City of Brea.

The following land uses surround the project limits:

- North of the project limits is generally oil field and natural open space within unincorporated Orange County. Much of this area is property owned by AERA and Brea Hills LLC.
- East of the project limits is State Route (SR) 57 and Tonner Canyon.
- South and west of the project limits is the City of Brea and associated residential areas, with some general commercial and public facility land uses. Immediately south of the middle stretch of the project limits are some steep slopes containing additional oil field activity and the Humble Reservoir.

PROJECT PURPOSE AND NEED

Brea Canyon Road experiences traffic congestion during the A.M and P.M. peak hours, operating at an unacceptable LOS F. The Project would widen the existing roadway, enhancing the existing LOS F to LOS A, substantially improving traffic flow through the Brea Boulevard/Brea Canyon area.

There are also existing safety issues along Brea Canyon Road within the project limits. The existing turn with a radius curve of 700 feet is considered to be very sharp and unsafe for the posted (i.e., operational) speed of 55 MPH. Additionally, existing motorist conflicts occur when vehicles attempt to turn from private driveways across the road, and at the unsignalized intersection of Brea Canyon Road and Tonner Canyon Road. The Project would address existing

safety issues by flattening (i.e., increasing the radius) the existing sharp curve (as well as improving the design of the other existing curves within the project limits), and installing both a median barrier/raised median within the project limits and a new traffic signal at the Tonner Canyon Road and Brea Canyon Road Intersection.

Additionally, existing bicycle access is poor within the project limits. The Project would improve bicycle access by providing an 8-foot shoulder on both sides of the road.

PROJECT ELEMENTS

The Project includes widening Brea Canyon Road from two to four lanes (two lanes each direction) along the entire approximately 9,265-linear-foot project limits, installing a traffic signal at the intersection of Brea Canyon Road and Tonner Canyon Road, and providing striping and installing new signage (refer to Figure 3, Proposed Project.) The Project's main elements are described below.

Roadway Widening

Brea Canyon Road would be widened from two to four lanes (two lanes each direction) with 11-foot minimum width lanes, 8-foot wide shoulders that would serve as bike lanes, variable width unpaved parkways (4-foot minimum width, and varies 7- to 17-foot), and a 6-foot-wide concrete median. The R/W width would be a minimum 74 feet and varies 80 to 100 feet. The proposed roadway design is considered a modified Primary Arterial Highway per OCPW's Standard Plan 1103 for Standard Street Sections because it would not provide 100 feet of R/W throughout the entire project limits.

Horizontal Alignment and Slope Cut

The horizontal alignment of the existing 700-foot radius curve would be increased to a minimum radius curve of 880 feet, with a superelevation (i.e., angle of roadway banking within the turn) of 10 percent, which is the maximum allowable superelevation per the American Association of State Highway and Transportation Officials (AASHTO). The 880-foot radius curve with 10 percent superelevation would provide for a comfortable horizontal curve speed of 55 MPH. Because this existing curve occurs within a tightly aligned section of Brea Canyon Road between Brea Creek to the north and a tall and steep hill to the south, a substantial roadway cut slope of up to 50 feet or more in height would be required to increase the radius curve. Slope stability associated with the proposed slope cut would be addressed through the construction of an approximately 50-foot-high retaining wall. It should be noted that the retaining wall would obstruct sight distance on the inside of the horizontal curve, reducing the operating speed of the curve to 45 MPH; however, any horizontal curve greater than 880 feet or further retaining wall set-back, for the purpose of increasing the operating speed, would require additional slope cut at this location.

In addition to addressing the existing 700-foot radius curve, the Project also includes increasing the four existing 1,000-foot radius curves within the project limits to minimum radii of 1,070 feet (with 6 percent superelevation), which would increase the comfortable horizontal curve speeds at these locations from 50 to 55 MPH, to match operational speeds. Improvements to these curvatures would involve only minor amounts of cut and fill and no retaining walls would be required.

Bridge Replacement and Culvert Crossing Modifications

Road widening would require replacement of the three bridges within the project limits, all of which are over 80 years old. Existing creek skews (i.e., the angle of flow relative to the bridge opening and roadway) are as much as 75 degrees, which would be reduced with replacement of

Q:\DCS\Projects\TRNP&D Environment\60492260 - Brea Canyon Road Project EIR\900 Working Docs - CAD\CADD GIS\Figure 2 Vicinity Map.mxd

Eagle Aerial Imaging (2015), OC Public Works (2017), and AECOM (2017).

Scale 1 : 12,000
1" = 1,000 feet

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Figure 3
Proposed Project

Brea Canyon Road Widening Project

the bridges for the purpose of improving flow patterns and reducing potential upstream impacts. In addition to the three bridges, there are approximately 13 culvert crossings (for drainage or oil lines or both) that would need to be extended or reconfigured as part of the widening. Bridge replacement and culvert work would require dewatering.

Bridge Replacement and Culvert Crossing Modifications

Road widening would require replacement of the three bridges within the project limits, all of which are over 80 years old. Existing creek skews (i.e., the angle of flow relative to the bridge opening and roadway) are as much as 75 degrees, which would be reduced with replacement of the bridges for the purpose of improving flow patterns and reducing potential upstream impacts. In addition to the three bridges, there are approximately 13 culvert crossings (for drainage or oil lines or both) that would need to be extended or reconfigured as part of the widening. Bridge replacement and culvert work would require dewatering.

Right-of-Way Acquisition, Driveway Access, and Utility Relocations

Road widening and re-alignment would require permanent partial property acquisitions for road easements R/W, permanent partial property acquisitions for retaining wall easements, and temporary construction easements, from adjacent private properties. Overall, the Project would require approximately 146,918 square feet (SF) of road easement, approximately 169,264 SF of retaining wall easement, and approximately 216,186 SF of temporary construction easement. It should be noted that existing portions of Brea Creek have been placed into a Scenic Preserve Easement under jurisdiction of the City of Brea that is intended to limit development within its boundaries. The Project would require two strips of land within this easement, which would require an encroachment permit from the City of Brea.

There are a number of existing driveway access points to properties that front Brea Canyon Road. Existing access points would be maintained, modified, relocated, consolidated and/or otherwise enhanced. Where existing driveway access points are not currently signalized, these locations would be constructed as right-in/right-out only, as no median breaks are proposed for maximum safety and unimpeded vehicular movement.

In addition, the Project would require utility and oilfield-related equipment relocations associated with power transmission poles/overhead telephone lines (up to 31 utility poles), oil lines, oil wells, telephone duct banks, etc. Utility and oilfield-related equipment relocations would require permits and/or agreements with the owners.

Intersection Signalization, Striping, and Signage

The existing Tonner Canyon Road and Brea Canyon Road intersection is proposed to be signalized to improve safety by reducing conflicts between motorists attempting to merge in either direction onto Brea Canyon Road. Dual northbound right turn lanes to Tonner Canyon Road are also proposed at this intersection. Tonner Canyon would be resurfaced and restriped to approximately 500 feet south of the intersection.

The existing traffic signal at Brea Canyon Road and Canyon Country Road would be replaced. Striping and appropriate signage would be provided throughout the project limits. Per Orange County MPAH, Brea Canyon Road would be designed for a minimum design speed of 55 MPH, with the exception of the proposed realigned horizontal curve with retaining wall. At this location the retaining wall would obstruct sight distance on the inside of the horizontal curve, reducing the safe stopping sight distance to 45 MPH, which would require yellow advisory speed signs consistent with the safe stopping sight distance.

CONSTRUCTION

Brea Boulevard/Brea Canyon Road would remain open to vehicular traffic during construction of the Project but bicycle and pedestrian traffic would be prohibited. Construction activities such as roadway widening, grading, retaining wall construction, utility relocations, etc., can be performed along the perimeters of the existing roadway, maintaining traffic within the existing interior roadway. Existing traffic can then be transferred to the new, widened road perimeters while reconstruction of the interior roadway is performed. Bridge replacement would be built in phases such that interim bridges would be constructed adjacent to existing bridges, then traffic would be diverted to the new bridges while existing bridges are demolished and replaced. Culvert crossing work would similarly be performed in phases.

There are three construction staging/laydown areas within the project limits (refer to Figure 3): (1) the first staging/laydown area is located at an unpaved area on the west side of Brea Boulevard, west of the existing traffic signal at Canyon Country and adjacent to where Brea Creek transitions to an engineered channel protected by riprap; (2) the second staging/laydown area is located at approximately the middle of the project limits on an unpaved strip containing an oil derrick on the south side of Brea Canyon Road where the roadway is at a straightaway and aligned in an east/west direction; and (3) the third staging/laydown area is located at an unpaved area on the east side of Tonner Canyon Road at its intersection with Brea Canyon Road.

Construction is expected to last approximately 3.5 years in duration and is anticipated to begin in the year 2020/2021.

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☒ Aesthetics	☐ Agriculture and Forestry Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☒ Geology/Soils
☒ Greenhouse Gas Emissions	☒ Hazards & Hazardous Materials	☒ Hydrology/Water Quality
☒ Land Use/Planning	☐ Mineral Resources	☒ Noise
☐ Population/Housing	☐ Public Services	☐ Recreation
☒ Transportation/Traffic	☒ Tribal Cultural Resources	☐ Utilities/Service Systems
☒ Mandatory Findings of Significance		

Determination

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☒ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Kevin Shannon — 02.14.17

Signature — Date

Kevin Shannon

Printed Name

Environmental Checklist Form

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS -- Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☒	☐	☐	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☒	☐	☐	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☒	☐	☐	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐
II. AGRICULTURE AND FORESTRY RESOURCES --				
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒
III. AIR QUALITY --				
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☒	☐	☐	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☒	☐	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☒	☐	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☒	☐	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐
IV. BIOLOGICAL RESOURCES -- Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☒	☐	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☒	☐	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☒	☐	☐	☐

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☒	☐	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒
V. CULTURAL RESOURCES -- Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☒	☐	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☒	☐	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☒	☐	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☒	☐	☐	☐
VI. GEOLOGY AND SOILS -- Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☒	☐	☐	☐
ii) Strong seismic ground shaking?	☒	☐	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☒	☐	☐	☐
iv) Landslides?	☒	☐	☐	☐
b) Result in substantial soil erosion or the loss of topsoil?	☒	☐	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☒	☐	☐	☐

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☒	☐	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
VII. GREENHOUSE GAS EMISSIONS --				
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☒	☐	☐	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☒	☐	☐	☐
VIII. HAZARDS AND HAZARDOUS MATERIALS --				
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☒	☐	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☒	☐	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒
IX. HYDROLOGY AND WATER QUALITY –				
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☒	☐	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☒	☐	☐	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☒	☐	☐	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☒	☐	☐	☐
f) Otherwise substantially degrade water quality?	☒	☐	☐	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☒	☐	☐	☐
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow?	☒	☐	☐	☐

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. LAND USE AND PLANNING -- Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☒	☐	☐	☐
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒
XI. MINERAL RESOURCES -- Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒
XII. NOISE -- Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☒	☐	☐	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☒	☐	☐	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☒	☐	☐	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☒	☐	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. POPULATION AND HOUSING --				
Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
XIV. PUBLIC SERVICES --				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒
XV. RECREATION --				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. TRANSPORTATION/TRAFFIC --				
Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☒	☐	☐	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☒	☐	☐	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☒	☐	☐	☐
e) Result in inadequate emergency access?	☐	☐	☒	☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☒	☐	☐	☐
XVIII. TRIBAL CULTURAL RESOURCES --				
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?, or	☒	☐	☐	☐

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☒	☐	☐	☐
XVIII. UTILITIES AND SERVICE SYSTEMS --				
Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒
XVIV. MANDATORY FINDINGS OF SIGNIFICANCE --				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☒	☐	☐	☐

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☒	☐	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐	☐

I. AESTHETICS

a) Would the project have a substantial adverse effect on a scenic vista?

POTENTIALLY SIGNIFICANT IMPACT. According to Chapter 4, Community Resources, of the City of Brea General Plan (2003), there are two specific view corridors along Brea Canyon Road that offer views of scenic resources, such as prominent ridgelines, open space, and hillsides. Although the County of Orange has not specifically defined scenic vistas, they have identified ridgelines and hillsides as scenic areas in the Resources Element of the County of Orange General Plan (2005). Additionally, existing portions of Brea Creek along Brea Canyon Road have been placed into a Scenic Preserve Easement under jurisdiction of the City of Brea that is intended to limit development within its boundaries. As such, implementation of the Project has the potential to have a substantial adverse effect on a scenic vista. Therefore, this issue will be analyzed in the EIR.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

POTENTIALLY SIGNIFICANT IMPACT. State Route (SR) 57, between Imperial Highway and SR-60, is considered eligible for the California State Scenic Highway Program, and would offer some limited views of improvements associated with the Project. Additionally, while not officially designated as a scenic highway by the state or explicitly by the City of Brea, the City's General Plan includes a "Scenic Highways" section in which it discusses SR-57 and two highways, one of which being Brea Canyon Road. The General Plan states, "Brea Canyon Road leads the motorist on a historic drive into the City of Brea" and offers "views of the natural landscape". Additionally, existing portions of Brea Creek along Brea Canyon Road have been placed into a Scenic Preserve Easement under jurisdiction of the City of Brea that is intended to limit development within its boundaries. As such, the Project could be considered to have the potential to affect resources within a scenic highway. Therefore, this issue will be analyzed in the EIR.

c) Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to substantially degrade the existing visual character or quality of the site and its surroundings. Therefore, this issue will be analyzed in the EIR.

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

LESS THAN SIGNIFICANT IMPACT. There are limited sources of light and glare throughout most of the project limits and vicinity, with the most sources occurring on the southern end of the project limits within the City of Brea, including existing street lighting. Sources of light and glare in the rest of the project limits and vicinity would be from motorists utilizing Brea Canyon Road, oil field equipment and activities, and the SR-57 in the northern portion of the project limits. Implementation of the Project would install a new traffic signal at the intersection of Brea Canyon Road and Tonner Canyon Road. While, there is no existing traffic light or street lighting at this intersection, the provision of a new signalized intersection would not represent a substantial source of light and glare, especially in the context of the nearby SR-57 that is lit and conveys high volumes of traffic. It should be noted that as part of roadway widening within the City of Brea the existing traffic signal at Brea Canyon Road and Canyon Country Road, as well as some existing street lighting, would be removed and replaced, resulting in minor changes to existing sources of light. These changes would not represent a new source of light or a substantial change compared to existing conditions. No other components of the Project would include lighting (e.g., no new street lighting is proposed within the unincorporated area of the project limits) or building materials that would generate substantial light or glare. Therefore, impacts related to the creation of new sources of light and glare would be less than significant and no mitigation measures would be required. This issue will not be analyzed further in the EIR.

II. AGRICULTURE AND FOREST RESOURCES

a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

NO IMPACT. The project limits and vicinity does not contain lands designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance[1]. Although the project site and surrounding area is zoned General Agricultural by the County of Orange, there are no agricultural resources or operations located in the project limits or vicinity. The General Agricultural zoning designation by the County of Orange also includes an Oil Production Overlay, which is what much of the surrounding area is utilized for. Thus, the Project would not result in the conversion of designated farmlands, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Department of Conservation. No impacts would occur. This issue will not be analyzed further in the EIR.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

NO IMPACT. Although the project limits and vicinity is zoned General Agricultural by the County of Orange, there are no agricultural resources or operations located in the project limits or vicinity. The General Agricultural zoning designation by the County of Orange also includes an Oil Production Overlay, which is what much of the surrounding area is utilized for. The Project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. No impacts would occur. This issue will not be analyzed further in the EIR.

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

NO IMPACT. The project limits are not located on forest land (as defined by Public Resources Code section 12220(g)), timberland (as defined in Public Resources Code section 4526), nor is the project limits zoned as timberland (as defined by Government Code section 51104(g)). Implementation of the Project would not involve any changes that could result in the conversion of timberland to non-timber uses. No impacts related to forest resources would occur. This issue will not be analyzed further in the EIR.

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

NO IMPACT. As described above, the project limits are not located on forest land, nor would the project involve the conversion of forest land to a non-forest use. No impacts related to the loss or conversion of forest land would occur. This issue will not be analyzed further in the EIR.

e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

NO IMPACT. Although the project limits and vicinity is zoned General Agricultural by the County of Orange, there are no agricultural resources or operations located in the project limits or vicinity. The Project involves widening an existing road and would not introduce any changes that would result in

[1] Farmland Mapping & Monitoring Program (FMMP), http://www.conservation.ca.gov/dlrp/fmmp/Pages/Index.aspx accessed on November 29, 2016.

conversion of farmland to non-agricultural use. In addition, as stated above, the Project is not located on forest land and would therefore not result in the conversion of forest land to non-forest use. No impacts would occur. Therefore, this issue will be analyzed in the EIR.

III. AIR QUALITY

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to conflict with applicable air quality plans (South Coast Air Quality Management Plan). Therefore, this issue will be analyzed in the EIR.

b) Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to violate air quality standards or contribute substantially to an existing or projected air quality violation. Therefore, this issue will be analyzed in the EIR.

c) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to cumulatively increase criteria pollutants within a non-attainment area that is under a federal or state ambient air quality standard. Therefore, this issue will be analyzed in the EIR.

d) Would the project expose sensitive receptors to substantial pollutant concentrations?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to result in an increase in air pollutant emissions, which could potentially expose sensitive receptors to substantial pollutant concentrations and could result in significant impacts. Therefore, this issue will be analyzed in the EIR.

e) Would the project create objectionable odors affecting a substantial number of people?

LESS THAN SIGNIFICANT IMPACT. Sources that may emit odors during construction activities include exhaust from diesel construction equipment and heavy-duty trucks, which could be considered offensive to some individuals. However, odors from these sources would be localized and generally confined to the immediate area surrounding the project limits. The Project would use typical construction techniques, such as grading by off-road equipment and hauling by on-road vehicles, and the odors would be typical of most construction sites and temporary in nature. Because of the amount and types of equipment, the temporary nature of these emissions, and the highly diffusive properties of diesel exhaust, nearby receptors would not be affected by diesel exhaust odors associated with Project construction. After construction of the Project, all construction-related odors would cease. Operation of the Project would not be expected to add any new odor sources, as Brea Canyon Road would continue to be used by varying types of motor vehicles similar to existing conditions. As a result, the Project would not create objectionable odors affecting a substantial number of people. Therefore, impacts related to odors would be less than significant. This issue will not be analyzed further in the EIR.

IV. BIOLOGICAL RESOURCES

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to have a substantial adverse effect, either directly or through habitat modifications, on species identified as candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS). Therefore, this issue will be analyzed in the EIR.

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or USFWS. Therefore, this issue will be analyzed in the EIR.

c) Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act. Therefore, this issue will be analyzed in the EIR.

d) Would be project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to interfere substantially with the movement of a native resident or migratory wildlife species or with established native resident or migratory wildlife corridors. Therefore, this issue will be analyzed in the EIR.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

NO IMPACT. Implementation of the Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Orange County and the City of Brea do not have any policy or ordinance specifically protecting biological resources, such as trees. No impact would occur. This issue will not be analyzed further in the EIR.

It should be noted that, as discussed later in this Initial Study, the Project has the potential to conflict with applicable land use plans, policies, and/or regulations adopted for the purpose of avoiding or mitigating environmental effects, which may indirectly involve biological resources. These potential conflicts will be discussed and analyzed within the Land Use and Planning section of the EIR.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

NO IMPACT. The project limits are not within or near an area covered by an adopted or approved conservation plan. No impacts would occur. This issue will not be analyzed further in the EIR.

V. CULTURAL RESOURCES

a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to cause a substantial change in the significance of a historical resource as defined in Section 15064.5 of CEQA. Therefore, this issue will be analyzed in the EIR.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of CEQA. Therefore, this issue will be analyzed in the EIR.

c) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. Therefore, this issue will be analyzed in the EIR.

d) Would the project disturb any human remains, including those interred outside of formal cemeteries?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to disturb human remains. Therefore, this issue will be analyzed in the EIR.

VI. GEOLOGY AND SOILS

a) Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

POTENTIALLY SIGNIFICANT IMPACT. The Whittier Fault trends northwest/southeast through the northern end of the project limits, south of the Orange County/Los Angeles County boundary line. The Project is located within an Alquist-Priolo Fault Zone. As such, implementation of the Project could expose people or structures to potential substantial adverse effects involving rupture of a known earthquake fault. Therefore, this issue will be analyzed in the EIR.

(ii) Strong seismic ground shaking?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project could expose people or structures to potential substantial adverse effects involving strong seismic ground shaking. Therefore, this issue will be analyzed in the EIR.

(iii) Seismic-related ground failure, including liquefaction?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project could expose people or structures to potential substantial adverse effects involving seismic-related ground failure, including liquefaction. Therefore, this issue will be analyzed in the EIR.

(iv) Landslides?

POTENTIALLY SIGNIFICANT IMPACT. As part of Project improvements, a substantial roadway cut slope of up to 50 feet or more in height would be required, which would result in the need to construct an approximately 50-foot-high retaining wall. Although the purpose of the retaining wall would be to address slope stability, including landslides, this issue will be analyzed in detail in the EIR.

b) Would the project result in substantial soil erosion or the loss of topsoil?

POTENTIALLY SIGNIFICANT IMPACT. Grading and slope cutting activities during construction would expose soils to potential erosion and could result in the loss of topsoil. Therefore, this issue will be analyzed in the EIR.

c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the project could locate project elements on a geologic unit or soil that is unstable, or could become unstable as a result of the Project, and potentially result in impacts associated with on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. Therefore, this issue will be analyzed in the EIR.

d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

POTENTIALLY SIGNIFICANT IMPACT. According to the County of Orange General Plan, much of Orange County is covered by expansive soils. As such, implementation of the Project could potentially expose people to risks related to expansive soils. Therefore, this issue will be analyzed in the EIR.

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

NO IMPACT. The Project does not include septic tanks or alternative waste disposal systems. This issue will not be analyzed further in the EIR.

VII. GREENHOUSE GAS EMISSIONS

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. Therefore, this issue will be analyzed in the EIR.

b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to conflict with an applicable plan, policy, or regulation (such as Assembly Bill 32) adopted for the purpose of reducing the emissions of greenhouse gases. Therefore, this issue will be analyzed in the EIR.

VIII. HAZARDS AND HAZARDOUS MATERIALS

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

LESS THAN SIGNIFICANT IMPACT. The Project involves widening an existing road. Construction of the Project would require the use of hazardous materials. Hazardous materials that are used during construction (e.g., petroleum-based products, paints, solvents, sealers, etc.) would be transported, used, stored, and disposed of according to City, County, state, and federal regulations. Operation of the Project would not involve routine transport, use, or disposal of hazardous materials, or result in the release of hazardous materials into the environment. Therefore, hazards to the public or the environment through the routine transport, use, or disposal of hazardous materials would be less than significant and no mitigation measures would be required. This issue will not be analyzed further in the EIR.

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment during construction due to unknown hazardous materials within the project limits. The project limits and adjacent properties have been used for a number of years to produce and store crude oil and other petroleum products, and undocumented wells, pipelines, and other oil field-related appurtenances could be unexpectedly encountered during construction of the Project. Therefore, this issue will be analyzed in the EIR.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

LESS THAN SIGNIFICANT IMPACT. Mariposa Elementary School, located at 1111 Mariposa Drive in the City of Brea, is located within one-quarter mile of the project limits. However, as stated previously, operation of the Project would not involve routine transport, use, or disposal of hazardous materials, or result in the release of hazardous materials into the environment. Project construction would involve the use of some common construction-related substances classified as hazardous materials (e.g., petroleum-based products, paints, solvents, sealers, etc.) that would be transported, used, stored, and disposed of according to City, County, state, and federal regulations. No acutely hazardous materials or substances, or wastes would be handled. Therefore, impacts associated with the emission or handling of hazardous materials within one-quarter mile of a school would be less than significant and no mitigation measures would be required. This issue will not be analyzed further in the EIR.

d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

POTENTIALLY SIGNIFICANT IMPACT. A Hazardous Materials Assessment (HMA) was performed in conformance with the scope and limitations of the American Society for Testing and Materials (ASTM) Practice E 1527-13 for the Project, which involved (1) a review of historical documents, (2) a regulatory agency database search, (3) a property inspection and area reconnaissance, and (4) interview activities including a review of a User Questionnaire. Based on the HMA, the Project would not be located on a site that is included on a list of hazardous materials sites; however, a total of 74 mapped sites were identified within a one-mile radius of the Project. Further investigation of each of these sites found all had a low potential for impacting the Project. No orphan sites (i.e., a contaminated property where no one is willing or able to provide adequate clean up) with poor or inadequate mapping information were provided in the database search and no Recognized Environmental Conditions (RECs) (i.e., the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property) were identified as part of the record search, review of historical documents, property inspection and reconnaissance, or interviews. Overall, no evidence of environmental degradation to the property from hazardous materials contamination was identified. However, the project limits and adjacent properties have been used for a number of years to produce and store crude oil and other petroleum products, and undocumented wells, pipelines, and other oil field-related appurtenances could be unexpectedly encountered during construction of the Project. Therefore, this issue will be analyzed in the EIR.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

NO IMPACT. The project limits are not located within 2 miles of a public airport or in the vicinity of a public airport or public use airport. The closest airport to the project limits is the Fullerton Municipal Airport which is approximately 6.25 miles to the southwest. Therefore, implementation of the Project would not result in public safety impacts associated with airports. This issue will not be analyzed further in the EIR.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

NO IMPACT. The project limits are not located in the vicinity of a private airstrip. Therefore, implementation of the Project would not result in public safety impacts associated with private airstrips. This issue will not be analyzed further in the EIR.

g) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

LESS THAN SIGNIFICANT IMPACT. Brea Boulevard/Brea Canyon Road would remain open to vehicular traffic during construction of the Project. Construction activities such as roadway widening, grading, retaining wall construction, utility relocations, etc., would be performed along the perimeters of the existing roadway, maintaining traffic within the existing interior roadway. Existing traffic would then be transferred to the new, widened road perimeters while reconstruction of the interior roadway is performed. Bridge replacement would be built in phases such that interim bridges would be constructed adjacent to existing bridges, then traffic would be diverted to the new bridges while existing bridges are demolished and replaced. Traffic flow could experience some temporary disruptions to general construction activity, but construction would not obstruct emergency operations or hinder emergency responder access in the project vicinity. Upon completion of construction activities, operation of the Project would not obstruct traffic flow or emergency operations. Additionally, neither the City of Brea nor the County of Orange identify Brea Boulevard/Brea Canyon Road as part of an emergency response plan or evacuation route.

Impacts related to emergency response or evacuation would be less than significant. This issue will not be analyzed further in the EIR.

h) Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

NO IMPACT. The Project is located within an area that is subject to wildland fires. However, the Project involves widening an existing road and would not expose people or structures to greater wildland fire-related hazards than currently exist at the project site. No impacts would occur. This issue will not be analyzed further in the EIR.

IX. HYDROLOGY AND WATER QUALITY

a) Would the project violate any water quality standards or waste discharge requirements?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to result in a violation of water quality standards or waste discharge requirements. Therefore, this issue will be analyzed in the EIR.

b) Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

LESS THAN SIGNIFICANT IMPACT. The Project would not result in an increase in the demand for water production because the Project involves widening an existing road. No wells would be drilled or operated. The Project would not have the potential to directly change the rate or flow of groundwater because it would not interfere with any known aquifers. No improvements are proposed that would substantially interfere with groundwater recharge, as increases in impervious surfaces associated with the widened road would continue to drain to the adjacent Brea Creek. Therefore, impacts to groundwater supplies or recharge would be less than significant and no mitigation measures would be required. This issue will not be analyzed further in the EIR.

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that could result in substantial erosion on- or off-site. Therefore, this issue will be analyzed in the EIR.

d) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to substantially alter the existing drainage pattern of the site or area, including through the alternation of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that could result in flooding on- or off-site. Therefore, this issue will be analyzed in the EIR.

e) Would the project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to create or contribute runoff water that could impact the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Therefore, this issue will be analyzed in the EIR.

f) Would the project otherwise substantially degrade water quality?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to substantially degrade water quality. Therefore, this issue will be analyzed in the EIR.

g) Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

NO IMPACT. The Project involves widening an existing road. No residential uses are included as part of the Project. Therefore, implementation of the Project would not place housing within a 100-year flood hazard area. This issue will not be analyzed further in the EIR.

h) Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project would place structures within the 100-year flood hazard area that could impede or redirect flood flows. Therefore, this issue will be analyzed in the EIR.

i) Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

NO IMPACT. The project limits are not located downstream of dam or levee and involves widening an existing road. The Project would not expose people or property to greater flooding hazards than currently exist in the project limits and no permanent, habitable structures would be included as part of the Project. No impacts would occur. This issue will not be analyzed further in the EIR.

j) Would the project expose people or structures to risk of inundation by seiche, tsunami, or mudflow?

POTENTIALLY SIGNIFICANT IMPACT. Seiches are extensive wave actions on lakes, reservoirs, or other enclosed bodies of water caused by meteorological or seismic activity, such as earthquakes. Tsunamis are seismically-induced sea waves generated by offshore earthquake, submarine landslide, or volcanic activity. The project limits are not located near a large body of water that would be subject to seiches or tsunamis. Therefore, no impacts related to seiche and tsunami would occur.

The project limits are situated within a canyon containing a number of steep slopes that could subject Brea Canyon Road to inundation by mudflow during periods of heavy rains. As part of the Project, a substantial roadway cut slope of up to 50 feet or more in height would be required. Slope stability associated with the proposed slope cut would be addressed through the construction of an approximately 50-foot-high retaining wall. Although the purpose of the retaining wall would be to address slope stability, including landslides, this issue will be analyzed in detail in the EIR.

X. LAND USE AND PLANNING

a) Would the project physically divide an established community?

NO IMPACT. The Project involves widening an existing road and has no potential to divide an established community. All existing land uses near the project limits would continue to be accessible via roadway and driveway, though it should be noted that some driveway access points would be reconfigured as right-in/right-out only, as no median breaks are proposed for maximum safety and unimpeded vehicular movement. No impacts related to physically dividing an established community would occur. This issue will not be analyzed further in the EIR.

b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

POTENTIALLY SIGNIFICANT IMPACT. The Project involves widening an existing road. Although no changes to the existing City of Brea and Orange County zoning and General Plan land use designations are expected to occur, the Project would result in some encroachment upon, and acquisition of, adjacent lands designated for various uses. Additionally, portions of Brea Creek have been placed into a Scenic Preserve Easement under jurisdiction of the City of Brea that is intended to limit development within its boundaries. The Project would require two strips of land within this easement. As such, the Project has the potential to conflict with applicable land use plans, policies, and/or regulations adopted for the purpose of avoiding or mitigating environmental effects. Therefore, this issue will be analyzed in the EIR.

c) Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

NO IMPACT. The project limits are not within or near an area covered by an adopted or approved conservation plan. No impacts would occur. This issue will not be analyzed further in the EIR.

XI. MINERAL RESOURCES

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

NO IMPACT. The project limits and majority of the surrounding area has been classified as Mineral Resource Zone 3 (MRZ 3), as shown on Plates 3.11 and 3.12 of the Generalized Mineral Land Classification Map of Orange County[2] for aggregate resources (sand, gravel, and stone). MRZ-3 areas indicate locations that contain mineral deposits, the significance of which cannot be evaluated due to inadequate surface data on quality. While there is oil field activity in the vicinity of the project limits, there are no current mining activities for aggregate and neither the City of Brea nor the County of Orange General Plans identify the project limits as a mineral resource zone or recovery site. Furthermore, the Project involves the widening of an existing roadway, which would not result in the loss of or access to potential mineral resources. No impacts would occur. This issue will not be analyzed further in the EIR.

b) Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

NO IMPACT. As discussed above, neither the City of Brea nor the County of Orange General Plans identify the project limits as a mineral resource zone or recovery site and the Project involves the widening of an existing roadway, which would not result in the loss of or access to potential mineral resources. No impacts would occur. This issue will not be analyzed further in the EIR.

[2] Division of Mines and Geology (1994), http://www.quake.ca.gov/gmaps/WH/smaramaps.htm accessed on November 30, 2016.

XII. NOISE

a) Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to result in the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies during construction. Therefore, this issue will be analyzed in the EIR.

b) Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels during construction. Therefore, this issue will be analyzed in the EIR.

c) Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the Project. Therefore, this issue will be analyzed in the EIR.

d) Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the Project. Therefore, this issue will be analyzed in the EIR.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

NO IMPACT. The project limits are not located within 2 miles of a public airport or in the vicinity of a public airport or public use airport. The closest airport to the project limits is the Fullerton Municipal Airport which is approximately 6.25 miles to the southwest. Therefore, implementation of the Project would not result in the exposure of people to excessive noise generated by a public airport. No impact would occur. This issue will not be analyzed further in the EIR.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

NO IMPACT. The project limits are not located within the vicinity of a private airstrip. Therefore, implementation of the Project would not result in the exposure of people to excessive noise generated by a private airstrip. No impact would occur. This issue will not be analyzed further in the EIR.

XIII. POPULATION AND HOUSING

a) Would the project Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

NO IMPACT. The Project involves widening an existing road and is intended to improve congestion and safety. There is no proposed residential or commercial/business component that could result in substantial population growth in the area. Construction workers would either be existing County employees or come from the existing local labor pool. Implementation of the Project would not result in the generation of new permanent jobs and would not contribute to any substantial population growth. Therefore, project implementation would not induce growth, either directly or indirectly. No impact would occur. This issue will not be analyzed further in the EIR.

b) Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

NO IMPACT. The Project involves widening an existing road. The project limits do not contain residential structures. Therefore, implementation of the Project would not displace any existing housing. No impact would occur. This issue will not be analyzed further in the EIR.

c) Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

NO IMPACT. See response to XIII. b), above. No impacts related to the necessity for replacement housing would occur. This issue will not be analyzed further in the EIR.

XIV. PUBLIC SERVICES

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire protection?

NO IMPACT. The Project involves widening an existing road. Therefore, implementation of the Project would not create a potential fire hazard or result in an increase in the occurrence of fires. There would be no increase in the demand for fire protection that would result in the need for new or expanded fire protection facilities. No impacts would occur. This issue will not be analyzed further in the EIR.

Police protection?

NO IMPACT. The Project involves widening an existing road. Therefore, implementation of the Project would not result in an increase in the occurrence of crime, an increase in the demand for police protection, or the need for new or expanded police protection facilities. No impacts would occur. This issue will not be analyzed further in the EIR.

Schools?

NO IMPACT. The Project does not include new residential development and would not result in an increased demand for school services. As such, the Project would not result in the need to alter existing schools or construct new schools, the construction of which could result in

significant impacts on the physical environment. Therefore, no impacts related to schools would occur. This issue will not be analyzed further in the EIR.

Parks?

NO IMPACT. The Project involves widening an existing road and does not include any residential units. Therefore, the Project would not result in an increased demand for additional park facilities. No impacts would occur. This issue will not be analyzed further in the EIR.

Other public facilities?

NO IMPACT. No other public services would be impacted by the Project. The Project is not expected to adversely affect any other governmental services in the area. Therefore, no impacts related to other public facilities would occur. This issue will not be analyzed further in the EIR.

XV. RECREATION

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

NO IMPACT. Demand for recreational facilities is primarily generated by permanent residents. The Project involves widening an existing road and does not include residential or other development that would result in either direct or indirect impacts to existing regional parks or other recreational facilities. Therefore, the Project would not result in an increase in the use of local or regional parks or recreational facilities. No impacts would occur. This issue will not be analyzed further in the EIR.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

NO IMPACT. The Project involves widening an existing road. The Project does not include the development of new recreational facilities or require the construction or expansion of other recreational facilities which might have an adverse impact on the environment. No impacts would occur. This issue will not be analyzed further in the EIR.

XVI. TRANSPORTATION/TRAFFIC

a) Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

POTENTIALLY SIGNIFICANT IMPACT. Although the Project involves widening an existing road for the purpose of improving congestion and safety, a traffic analysis will be prepared to analyze the Project and its effect regarding applicable plans, ordinances, or policies establishing measures of effectiveness for the performance of the circulation system. Therefore, this issue will be analyzed in the EIR.

b) Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

POTENTIALLY SIGNIFICANT IMPACT. Although the Project involves widening an existing road for the purpose of improving congestion and safety, a traffic analysis will be prepared to analyze the Project and

its effect regarding applicable congestion management programs. Therefore, this issue will be analyzed in the EIR.

c) Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

NO IMPACT. There are no airports within 6.25 miles of the project limits. The Project, which involves the widening of an existing road, would not have the potential to affect air traffic or air traffic patterns. No impacts related to air traffic would occur. This issue will not be analyzed further in the EIR.

d) Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

POTENTIALLY SIGNIFICANT IMPACT. Although the Project involves widening an existing road for the purpose of improving congestion and safety, a traffic analysis will be prepared to analyze the Project and its effect regarding design feature hazards (e.g., sharp curves or dangerous intersections) or incompatible uses. Therefore, this issue will be analyzed in the EIR.

e) Would the project result in inadequate emergency access?

LESS THAN SIGNIFICANT IMPACT. Brea Boulevard/Brea Canyon Road would remain open to vehicular, including emergency vehicular, traffic during construction of the Project. Construction activities such as roadway widening, grading, retaining wall construction, utility relocations, etc., would be performed along the perimeters of the existing roadway, maintaining traffic within the existing interior roadway. Existing traffic would then be transferred to the new, widened road perimeters while reconstruction of the interior roadway is performed. Bridge replacement would be built in phases such that interim bridges would be constructed adjacent to existing bridges, then traffic would be diverted to the new bridges while existing bridges are demolished and replaced. Traffic flow could experience some temporary disruptions to general construction activity, but construction would not obstruct emergency operations or hinder emergency responder access in the project vicinity. Upon completion of construction activities, operation of the Project would not obstruct traffic flow or emergency operations. Impacts related to emergency access would be less than significant. This issue will not be analyzed further in the EIR.

f) Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

POTENTIALLY SIGNIFICANT IMPACT. Although the Project involves widening an existing road for the purpose of improving congestion and safety, a traffic analysis will be prepared to analyze the Project and its effect regarding public transit, bicycle, and pedestrian facilities and safety. Therefore, this issue will be analyzed in the EIR.

XVII. TRIBAL CULTURAL RESOURCES

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

(i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to cause a substantial change in the significance of a tribal cultural resource as defined in Public

Resources Code section 21074 and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k). Therefore, this issue will be analyzed in the EIR.

(ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to cause a substantial change in the significance of a tribal cultural resource as defined in Public Resources Code section 21074 and that is determined to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1 Therefore, this issue will be analyzed in the EIR.

XVIII. UTILITIES AND SERVICE SYSTEMS

a) Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

NO IMPACT. The Project involves widening an existing road and would not result in the generation of raw sewage. Therefore, the Project would not result in exceedance of wastewater treatment requirements of the Regional Water Quality Control Board. No impacts would occur. This issue will not be analyzed further in the EIR.

b) Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

NO IMPACT. As indicated above, the Project involves widening an existing road. Thus, the Project would not result in the generation of raw sewage, nor create a demand for sewer collection and/or treatment facilities. Likewise, the Project would not result in an increased demand for wastewater or water treatment facilities. Therefore, no new or expanded wastewater or water treatment facilities would be required to accommodate the Project. No impacts would occur. This issue will not be analyzed further in the EIR.

c) Would the project require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

LESS THAN SIGNIFICANT IMPACT. The Project involves widening an existing road, which would result in an increase in impervious surfaces; however, all runoff from the project limits would continue to drain to the adjacent Brea Creek. Certain elements of the Project, such as the new retaining wall, would require appropriate drainage design consideration; however, the Project would not require or result in the construction of substantial new stormwater drainage facilities or expansion of existing facilities. Therefore, impacts related to construction or expansion of stormwater drainage facilities would be less than significant and no mitigation measures would be required. This issue will not be analyzed further in the EIR.

d) Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

NO IMPACT. Construction and operation of the Project would not affect water supplies, as the Project invovles widening an existing road. Construction activity would require minimal amounts of water which would be accommodated from existing water supplies and entitlements. Implementation of the Project

would not result in the need to expand existing water facilities or construct new water facilities. No impacts would occur. This issue will not be analyzed further in the EIR.

e) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

NO IMPACT. No development is proposed that would result in the generation of raw sewage. No impacts would occur. This issue will not be analyzed further in the EIR.

f) Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

LESS THAN SIGNIFICANT IMPACT. The Project involves the widening of an existing road and associated improvements, including demolition and removal of three existing bridges, possible reconfiguration of some existing culverts, and a substantial slope cut requiring a retaining wall, all of which would generate some construction-related solid waste. Operation of the Project would not result in the generation of solid waste. It should be noted the County would ensure that at least 50 percent of construction and demolition waste from the Project is recycled per the OC Waste & Recycling Construction and Demolition Recycling and Reuse Program. The remaining waste would not be considered substantial and could be accommodated at local landfills. Impacts would be less than significant. This issue will not be analyzed further in the EIR.

g) Would the project comply with federal, state, and local statutes and regulations related to solid waste?

NO IMPACT. As indicated above, the quantity of solid waste would not be substantial and would be accommodated by local landfills. The Project would comply with all federal, state and local statutes and regulations related to the disposal of solid waste. Therefore, no impacts related to compliance with statues and regulations related to solid waste would occur. This issue will not be analyzed further in the EIR.

XVIV. MANDATORY FINDINGS OF SIGNIFICANCE

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

POTENTIALLY SIGNIFICANT IMPACT. As described previously in this Initial Study Checklist, implementation of the Project has the potential to degrade the quality of the environment, as well as result in potential significant impacts to biological resources and cultural resources. Therefore, this issue will be analyzed in the EIR.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to have impacts that are individually limited but cumulatively considerable. Therefore, this issue will be analyzed in the EIR.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

POTENTIALLY SIGNIFICANT IMPACT. As described previously in this Initial Study Checklist, implementation of the Project has the potential to result in environmental effects which would cause direct and/or indirect substantial adverse effects on human beings. Therefore, this issue will be analyzed in the EIR.

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STATE WATER RESOURCES CONTROL BOARD ATTN: ENVIRONMENTAL REVIEW 1001 I STREET, 15TH FLOOR SACRAMENTO, CA 95814 916/341-5455	NATIVE AMERICAN HERITAGE COMMISSION ATTN: ENVIRONMENTAL REVIEW 1550 HARBOR BOULEVARD. SUITE 100 WEST SACRAMENTO, CA 95691	CALTRANS, DISTRICT 12 ATTN: CHRISTOPHER HERRE 1750 EAST 4TH STREET, SUITE 100 SANTA ANA, CA 92705
KAREN GOEBEL U.S. FISH & WILDLIFE SERVICE 2177 SALK AVENUE, SUITE 250 CARLSBAD, CALIFORNIA 92008	SOUTHERN CALIFORNIA ASSN. OF GOVERNMENTS ATTN: JONATHAN NADLER 818 W. SEVENTH ST., 12TH FLOOR LOS ANGELES, CA 90017	LAURA BLAUL, FIRE PREVENTION ORANGE COUNTY FIRE AUTHORITY 1 FIRE AUTHORITY ROAD IRVINE, CA 92602
JASON MARSHALL, CHIEF DEPUTY DIRECTOR CA DEPARTMENT OF CONSERVATION 801 K STREET, MS 24-01 SACRAMENTO, CA 95814	ATTN: ENVIRONMENTAL REVIEW SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT 21865 EAST COPLEY DRIVE DIAMOND BAR, CA 91765-4182	ATTN: ENVIRONMENTAL REVIEW SANITATION DISTRICTS OF ORANGE COUNTY 10844 ELLIS AVENUE FOUNTAIN VALLEY, CA 92708
ATTN: ENVIRONMENTAL REVIEW SOUTHERN CA GAS COMPANY 3050 E LA JOLLA STREET ANAHEIM, CA 92806	ATTN: ENVIRONMENTAL REVIEW SOUTHERN CALIFORNIA EDISON 1325 S. GRAND AVE. SANTA ANA, CA 92705	MICHAEL R. MARKUS, P.E., GEN. MGR. ORANGE COUNTY WATER DISTRICT 18700 WARD STREET FOUNTAIN VALLEY, CA 92708
JENNIFER LUCCHESI, EXEC. OFFICER STATE LANDS COMMISSION 100 HOWE AVE. SOUTH, SUITE 100-S SACRAMENTO, CA 95825	ROBERT BEAVER, DIRECTOR RESEARCH AND DEVELOPMENT DVSN ORANGE COUNTY SHERIFF 431 CITY DRIVE SOUTH ORANGE, CA 92868	CA DEPT OF TOXIC SUBSTANCES CONTROL CYPRESS REGIONAL OFFICE ATTN: RAFIQ AHMED 5796 CORPORATE AVENUE CYPRESS, CA 90630-4700
COUNTY OF SAN BERNARDINO COUNTY GOVERNMENT CENTER ATTN: LAND USE SERVICES DEPT. 385 N. ARROWHEAD AVENUE SAN BERNARDINO, CA 92415	ED PERT, REGIONAL MANAGER CA DEPT OF FISH AND WILDLIFE 3883 RUFFIN ROAD SAN DIEGO, CA 92123	CAROL EMERY, EXECUTIVE OFFICER ORANGE COUNTY LAFCO 2677 N. MAIN STREET, SUITE 1050 SANTA ANA, CA 92705
GABRIELENO BAND OF MISSION INDIANS ATTN: ANDREW SALAS P. O. BOX 393 COVINA, CA 91723	JUANENO BAND OF MISSION INDIANS ATTN: JOYCE STANFIELD PERRY 4955 PASEO SEGOVIA IRVINE, CA 92603	SOBOBA BAND OF LUISENO INDIANS ATTN: JOSEPH ONTIVEROS P. O. BOX 487 SAN JACINTO, CA 92581
KEVIN SHANNON ORANGE COUNTY DEPARTMENT OF PUBLIC WORKS – COMMUNITY DEVT 300 N. FLOWER STREET SANTA ANA, CA 92703-5000	CALTRANS, DISTRICT 8 ATTN: ENVIRONMENTAL REVIEW 464 w. 4TH STREET SAN BERNARDINO, CA 92401	CALTRANS, DISTRICT 12 ATTN: ENVIRONMENTAL REVIEW 1750 EAST 4TH STREET, SUITE 100 SANTA ANA, CA 92705
CALTRANS, DISTRICT 8 ATTN: LOCALPLANNING, INTER GOVERNMENTAL REVIEW 464 w. 4TH STREET SAN BERNARDINO, CA 92401	COUNTY OF SAN BERNARDINO COUNTY GOVERNMENT CENTER ATTN: DEPT. OF PUBLIC WORKS 825 E. 3RD STREET SAN BERNARDINO, CA 92415	OC WASTE AND RECYCLING ATTN: JOHN ARNAU 300 NORTH FLOWER STREET, SUITE 400 SANTA ANA, 92703

CITY OF BREA ATTN: ENVIRONMENTAL REVIEW PLANNING DIVISION 1 CIVIC CENTER CIRCLE BREA, CA 92821	CITY OF BREA ATTN: PUBLIC WORKS - ENGINEERING PLANNING DIVISION 1 CIVIC CENTER CIRCLE BREA, CA 92821	SANTA ANA REGIONAL WATER QUALITY CONTROL BOARD ATTN: 401 WATER QUALITY CERT. 3737 MAIN STREET, SUITE 500 RIVERSIDE, CA 92501
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFIORNIA ATTN: JEFFREY KIGHTLINGER 700 N. ALAMEDA STREET LOS ANGELES, CA 90012	COUNTY OF LOS ANGELES DEPARTMENT OF REGIONAL PLANNING 320 WEST TEMPLE STREET LOS ANGELES, CA 90012	ORANGE COUNTY FIRE AUTHORITY ATTN: MICHELE HERNANDEZ 1 FIRE AUTHORITY ROAD IRVINE, CA 92602
SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS ATTN: LIJIN SUN 818 WEST 7TH STREET, SUITE 1200 LOS ANGELES, CA 90017	AERA ENERGY 10000 MING AVE BAKERSFIELD, CA 93311	BREA HILLS, LLC 1316 SOLANO AVE ALBANY, CA 94706
CALRESOURCES, LLC 1281 BREA CANYON RD BREA, CA 92821		
	LINN WESTERN OPERATING, INC. ATTN: ENVIRONMENTAL REVIEW JP MORGAN CHASE TOWER 600 TRAVIS, SUITE 600 HOUSTON, TX 77002	CHEVRON PIPELINE COMPANY 1400 SMITH STREET HOUSTON, TX 77002
.	VINTAGE PRODUCTIONS CALIFORNIA LLC 9600 MING AVENUE, SUITE 300 BAKERSFIELD, CA 93311	
SAN BERNARDINO COUNTY TRANSPORTATION AUTHORITY 1170 WEST 3RD STREET, SECOND FLOOR SAN BERNARDINO, CA 92410-1715	SAN BERNARDINO COUNTY COUNCIL OF GOVERNMENTS 1170 WEST 3RD STREET, SECOND FLOOR SAN BERNARDINO, CA 92410-1715	CALIFORNIA HIGHWAY PATROL SOUTHERN DIVISION ATTN: ENVIRONMENTAL REVIEW 411 NORTH CENTRAL AVENUE GLENDALE, CA 91203
CALTRANS TRANSPORTATION PLANNING DIVISION MS NO 32 P.O. BOX 942874 SACRAMENTO, CA 94274-0001	KINDRED HOSPITAL BREA ATTN: CHIEF EXECUTIVE OFFICER 875 NORTH BREA BOULEVARD BREA, CA 92821-2606	USA PROPERTIES FUND 3200 DOUGLAS BOULEVARD, SUITE 200 ROSEVILLE, CA 95661 ATTN: VINTAGE CANYON APARTMENTS
CALRESOURCES, LLC PO BOX 11164 BAKERSFIELD, CA 93389	TONNER CANYON LLC 1403 N BREA BLVD BREA, CA 92835	TONNER CANYON LLC 1316 SOLANO AVE ALBANY, CA 94706
BREA HILLS, LLC 1712 BREA BLVD BREA, CA 92835	BREA HILLS, LLC 1531 N. BREA CANYON BLVD BREA, CA 92835	LEVERING ROBERT T FAMILY TRUST 1203 GRAND CANYON BREA, CA 92821

ROUX DIANNE T 1215 GRAND CANYON BREA, CA 92821	CONNELLY WILLIAM J TRUST 1227 GRAND CANYON BREA, CA 92821	VENTAS REALTY 875 N BREA BLVD BREA, CA 92821
NAM DONG SOO 1239 GRAND CANYON BREA, CA 92821	JUAN ALAS 1187 GRAND CANYON BREA, CA 92821	VENTAS REALTY 680 S 4TH STREET LOUISVILLE, KY 40202
FLORIA ALAN DALE AB LIVING TRUST 1171 GRAND CANYON BREA, CA 92821	NAPLES RAYMOND J TRUST 1153 GRAND CANYON BREA, CA 92821	CHANG JINGFA & FEN-ING L 1147 GRAND CANYON BREA, CA 92821
ARNOLD & PAMELA HOPKINS 1139 GRAND CANYON BREA, CA 92821	FERNANDO & ROCIO G SENA 1131 GRAND CANYON BREA, CA 92821	SEO EDWARD 1123 GRAND CANYON BREA, CA 92821
CHOUDHURI BISHWANATH 1115 GRAND CANYON BREA, CA 92821	CULP ORVILLE TRUST 1107 GRAND CANYON BREA, CA 92821	PAPADOPOL FLORENTIN 1099 GRAND CANYON BREA, CA 92821
SHEW SHERMAN ETAL 1091 GRAND CANYON BREA, CA 92821	GUPTA & TULI SATYAJIT 1083 GRAND CANYON BREA, CA 92821	BURNS FAMILY TRUST 1075 GRAND CANYON BREA, CA 92821
BURNS FAMILY TRUST 1812 ISLAND DRIVE FULLERTON, CA 92833	ITMAIZA RIYAD AHMED TRUST R 1067 GRAND CANYON BREA, CA 92821	MORGAN KARL TRUST 1059 N. EVENING CANYON RD BREA, CA 92821
MORGAN KARL TRUST 431 CLAIRMONT AVE PLACENTIA, CA 92870	CHRISTOPHER LOUIS REYNOZA 1035 N. EVENING CANYON RD BREA, CA 92821	BAINTER DAVID E TRUST 1017 EVENING CANYON RD BREA, CA 92821
CALIN I & CAMELIA CIOBANU 1003 N EVENING CANYON RD BREA, CA 92821	BRADLEY W UHLMANSIEK & KATHLEEN D STEVENSON 989 N EVENING CANYON RD BREA, CA 92821	FRANK & HUILAN Y CAO 963 N EVENING CANYON RD BREA, CA 92821
DAVID B WALLACE TRUST 937 N EVENING CANYON RD BREA, CA 92821	SIMJEE RASHEED TRUST 921 EVENING CANYON RD BREA, CA 92821	ELAINE DEE COX TRUST 905 EVENING CANYON RD BREA, CA 92821

ELAINE DEE COX TRUST 337 SUNCREST CIR ARCADIA, CA 91007	CHRISTOPHER N HAGY 891 N EVENING CANYON RD BREA, CA 92821	VINTAGE CREEK SENIOR 3803 E CASSELLE AVE ORANGE, CA 92869
VINTAGE CREEK SENIOR 855 N BREA BLVD BREA, CA 92821	JOHN Y S LIN TRUST 103 W CENTRAL AVE BREA, CA 92821	JOHN Y S LIN TRUST 42 GRASSLAND IRVINE, CA 92620
EDWIN D WONG 883 N EVENING CANYON RD BREA, CA 92821	SCOT G MOORE 875 N EVENING CANYON RD BREA, CA 92821	SOHRA Z REVOC CHAMADIA LIVING TRUST 867 N EVENING CANYON RD BREA, CA 92821
DANIECE CICCHELLLI TRUST 859 N EVENING CANYON RD BREA, CA 92821	DARRYL A JONES TRUST D 851 N EVENING CANYON RD BREA, CA 92821	DARRYL A JONES TRUST D 1146 STEELE DR YORBA LINDA, CA 92886
MOHAMMED P CHAWLA TRUST 202 E BROOKSHIRE PL BREA, CA 92821	AERA ENERGY 3030 SATURN ST #101 BREA, CA 92821	CITY OF INDUSTRY 15651 STAFFORD ST CITY OF INDUSTRY, CA 91744
TW TELECOM, INC 7 MASON IRVINE, CA 92618	VERIZON HEADQUARTERS 140 W. ST. NEW YORK, NY 10036	VERIZON HEADQUARTERS 1095 AVENUE OF THE AMERICAS NEW YORK, NY 10036
AT & T HEADQUARTERS 208 S. AKARD ST DALLAS, TX 75202	SPRINT HEADQUARTERS 6200 SPRINT PKWY OVERLAND PARK, KS 66251	ORANGE COUNTY SHERRIFF'S DEPARTMENT- HEADQUARTERS 550 N. FLOWER ST SANTA ANA, CA 92703
ORANGE COUNTY SHERIFF'S DEPARTMENT – ADMINISTRATION 909 N. MAIN ST #2 SANTA ANA, CA 92701	ROBERT E. BRAIN 665 E. D. ST. WILMINGTON, CA 90744	COOPER & BRAIN, INC PO BOX 1177 WILMINGTON, CA 90748-1177
CROWN CASTLE WEST AREA 38 EXECUTIVE PARK, SUITE 310 IRVINE, CA 92614	DAVID EVANS AND ASSOCIATES, INC. ATTN: ROMEO FIRME 17782 17TH STREET SUITE 200 TUSTIN, CA 92680-1947	WILDLIFE CORRIDOR CONSERVATION AUTHORITY ATTN: JUDI TAMASI 570 WEST AVENUE 26, SUITE 100 LOS ANGELES, CA 90065
AERA ENERGY, LLC ATTN: MICHAEL KLANCHER 3030 SATURN ST., STE 101 BREA, CA 92821		

CITY OF DIAMOND BAR COMMUNITY DEVELOPMENT DEPT, PLANNING DIVISION ATTN: ENVIRONMENTAL REVIEW 21810 COPLEY DRIVE DIAMOND BAR, CA 91765	CITY OF DIAMOND BAR PUBLIC WORKS DEPARTMENT ATTN: ENVIRONMENTAL REVIEW 21810 COPLEY DRIVE DIAMOND BAR, CA 91765	ORANGE COUNTY PUBLIC LIBRARY BREA LIBRARY 1 CIVIC CENTER CIRCLE BREA, CA 92821
NIETO & SONS TRUCKING 1281 SOUTH BREA CANYON ROAD BREA, CA 92821	CHUNG HEEE YOON 1236 GRAND CANYON BREA, CA 92821	SCHAEFER MICHAEL TRUST 1224 GRAND CANYON BREA, CA 92821
HEYDARI ABBAS 1212 GRAND CANYON BREA, CA 92821	CROWDER KENNETH I TRUST 1200 GRAND CANYON BREA, CA 92821	PERLSON BENNET GORDON TRUST 1184 GRAND CANYON BREA, CA 92821
LEE YUNMI 1168 GRAND CANYON BREA, CA 92821	LYONS PATRICK J AND GAIL 1150 GRAND CANYON BREA, CA 92821	ERNESTO & SANDRA MIRANDA 1140 GRAND CANYON BREA, CA 92821
JOHN & BARBARA MATTSON 1132 GRAND CANYON BREA, CA 92821	IOANA MIHAILA 1124 GRAND CANYON BREA, CA 92821	DENNIS & PRISCILLA CHAN 1116 GRAND CANYON BREA, CA 92821
FERNANDO FLORES 1108 GRAND CANYON BREA, CA 92821	AKHTARBANO RIZVI 1100 GRAND CANYON BREA, CA 92821	JOHNATHAN & RUBILYNE GOROSPE 1092 GRAND CANYON BREA, CA 92821
CAMPAS FAMILY LIVING TRUST 1084 GRAND CANYON BREA, CA 92821	CRAIG & DENISE GEORGIANNA 1068 GRAND CANYON BREA, CA 92821	SEONGSIL YOON 1060 GRAND CANYON BREA, CA 92821
SANDRA LAWRENCE TRUST 1052 GRAND CANYON BREA, CA 92821	SANDRA LAWRENCE TRUST 5540 PASEO GILBERTO YORBA LINDA, CA 92886	STEVE SUNG YOO TRUST 1044 GRAND CANYON BREA, CA 92821
DAVID & SUSAN HODGSON 1036 GRAND CANYON BREA, CA 92821	JANICE GARCIA 1028 GRAND CANYON BREA, CA 92821	DAVID & SHERRY ALLISON 1020 GRAND CANYON BREA, CA 92821
LINO C WONG TRUST 1012 GRAND CANYON BREA, CA 92821	EUGENIA SANDOIU 1004 GRAND CANYON BREA, CA 92821	LISA MATARAZZO 998 GRAND CANYON BREA, CA 92821

MICHAEL CHIANG 992 GRAND CANYON BREA, CA 92821	MICHAEL CHIANG 18565 STONEGATE LANE ROWLAND HEIGHTS, CA 91748	JAMES GOATCHER 1036 N EVENING CANYON RD BREA, CA 92821
CAROLYN CAMPBELL TRUST 1020 N EVENING CANYON RD BREA, CA 92821	CAROLYN CAMPBELL TRUST 17502 SHERBROOK DR TUSTIN, CA 92780	TIMOTHY CHAN TRUST 1008 N EVENING CANYON RD BREA, CA 92821
TIMOTHY CHAN TRUST 400 E HERMOSA DRIVE SAN GABRIEL, CA 91775	BILLIE LYNN HENDRIXSON 1002 N EVENING CANYON RD BREA, CA 92821	SOO JIN YU 996 N EVENING CANYON RD BREA, CA 92821
JU HONG LEE 990 N EVENING CANYON RD BREA, CA 92821	MICHELLE LAM 964 N EVENING CANYON RD BREA, CA 92821	REGALADO BUENVIADJE TRUST 938 N EVENING CANYON RD BREA, CA 92821
JONATHAN KIYOSHI FUJIMOTO TRUST 922 N EVENING CANYON RD BREA, CA 92821	THANH & THUC NGUYEN 1011 GRAND CANYON RD BREA, CA 92821	THANH & THUC NGUYEN 14952 MALAGA PLZ WESTMINSTER, CA 92684
KENNETH & DEBRA CAMACHO 1003 GRAND CANYON RD BREA, CA 92821	M G & B T KIRKPATRICK TRUST 997 GRAND CANYON RD BREA, CA 92821	MIKE & LORI NICASSIO 991 GRAND CANYON RD BREA, CA 92821
MICHAEL BARRY CONDIFF TRUST 965 GRAND CANYON RD BREA, CA 92821	KYU MO & CHONG HEE YANG 949 GRAND CANYON RD BREA, CA 92821	LIN JUN 923 GRAND CANYON RD BREA, CA 92821
EDGARDO & PEGGY CRISOSTOMO 1101 N NIGUEL CANYON WAY BREA, CA 92821	GREGORY KERBY TRUST 1115 N NIGUEL CANYON WAY BREA, CA 92821	ROSWITHA STARK TRUST 1133 N NIGUEL CANYON WAY BREA, CA 92821
ALBERT & WENDY GARCIA 1148 N NIGUEL CANYON WAY BREA, CA 92821	RYAN AARON RICHARD & CAROLINE NGA THIEN TRAN 1134 N NIGUEL CANYON WAY BREA, CA 92821	ANTHONY CURIALE 1116 N NIGUEL CANYON WAY BREA, CA 92821
ROBERT & ANNE MARIE LANPHAR 1102 N NIGUEL CANYON WAY BREA, CA 92821	DAVID HALE TRUST 1007 N GLEN CANYON WAY BREA, CA 92821	WILLIAM SHUMARD TRUST 1008 N GLEN CANYON WAY BREA, CA 92821

RITA BHATT TRUST 1014 N GLEN CANYON WAY BREA, CA 92821	LANE & KATHRYN FOLLIOTT 1020 GLEN CANYON WAY BREA, CA 92821	MICHAEL QUAN TRUST 1026 N GLEN CANYON WAY BREA, CA 92821
HARGOVIND PATEL TRUST 1032 N GLEN CANYON WAY BREA, CA 92821	WAYLIN CHU TRUST 1013 N GLEN CANYON WAY BREA, CA 92821	THOMAS JONES TRUST 1019 N GLEN CANYON WAY BREA, CA 92821
ROBBY LEE 1025 N GLEN CANYON WAY BREA, CA 92821	TONY BELL TRUST 1038 N GLEN CANYON WAY BREA, CA 92821	RODNEY & KATHRYN TODD 1044 N GLEN CANYON WAY BREA, CA 92821
MICHAEL HOOPER TRUST 1050 N GLEN CANYON WAY BREA, CA 92821	CHRISTIAN & TARA FISHER 226 ECHO CANYON PL BREA, CA 92821	SELMA FREEMAN TRUST 234 E ECHO CANYON PL BREA, CA 92821
YONG KU LEE & NANCY EUN-KYUNG 242 E ECHO CANYON PL BREA, CA 92821	OSCAR JR & MONICA GALLEGOS 250 ECHO CANYON PL BREA, CA 92821	CYNTHIA RHODES REVOC LIVING TRUST 258 E ECHO CANYON PL BREA, CA 92821
KI MAN HAN 266 ECHO CANYON PL BREA, CA 92821	VERONICA MAHER 274 ECHO CANYON PL BREA, CA 92821	MASOUD JAFARI FAMILY TRUST 282 E ECHO CANYON PL BREA, CA 92821
JAMES VAZQUEZ 225 BROOKSHIRE PL BREA, CA 92821	WILLIAM TIMOTHY STAGG TRUST 233 E BROOKSHIRE PL BREA, CA 92821	IRA & SUNNY WHITE 2441 E BROOKSHIRE PL BREA, CA 92821
NABIL EDWARD KHOURI TRUST 249 E BROOKSHIRE PL BREA, CA 92821	PERPETUGO & MARIE MIRAFLOR 257 E BROOKSHIRE PL BREA, CA 92821	KENNETH & ANGELA LORENTZEN 265 E BROOKSHIRE PL BREA, CA 92821
SHERMAN SHIU-FU CHEN TRUST 273 E BROOKSHIRE PL BREA, CA 92821	SHERMAN SHIU-FU CHEN TRUST 1429 ROBERT CT BREA, CA 92821	HAINING & TIFFANY FAN 281 E BROOKSHIRE PL BREA, CA 92821
AUGUST DANIEL COBY 216 E BROOKSHIRE PL BREA, CA 92821	AKKERA REDDY TRUST 224 E BROOKSHIRE PL BREA, CA 92821	AKKERA REDDY TRUST 13397 GOLD SPRINGS ST VICTORVILLE, CA 92392

IGOR & TATYANA ERENBURG 232 E BROOKSHIRE PL BREA, CA 92821	STELLA CAUSLAND 240 E BROOKSHIRE PL BREA, CA 92821	RICHARD l& ELIZABETH AMENDOLA 248 E BROOKSHIRE PL BREA, CA 92821
HWA SOON HYUN 256 E BROOKSHIRE PL BREA, CA 92821	SONG JOHN SOON CHUL & SOOK HEE 264 E BROOKSHIRE PL BREA, CA 92821	JOHN & SHARON CASEY 272 E BROOKSHIRE PL BREA, CA 92821
KEVIN WOOSUNG & DIAN EUNJOO SOHN 280 BROOKSHIRE PL BREA, CA 92821	MOHAMMAD SAMIR OUSMAN 284 BROOKSHIRE PL BREA, CA 92821	SAM MENCHACA 294 E BROOKSHIRE PL BREA, CA 92821
JOHN STEVENS TRUST 852 N GRAND CANYON RD BREA, CA 92821	RYAN & ASHLEY STINSON 860 GRAND CANYON BREA, CA 92821	CHESTER DRAPKOWSKI TRUST 868 N GRAND CANYON RD BREA, CA 92821
JOHNNY CHEN 876 GRAND CANYON RD BREA, CA 92821	JEFFREY RODINE & LENA MIZUTANI 884 N GRAND CANYON BREA, CA 92821	SUZANNE ERD TRUST 892 N GRAND CANYON RD BREA, CA 92821
LYNN AGUILERA 900 N GRAND CANYON RD BREA, CA 92821	EFREN NERI TRUST 297 E ECHO CANYON PL BREA, CA 92821	MICHAEL GALLENSTEIN TRUST 285 E ECHO CANYON PL BREA, CA 92821
MICHAEL GALLENSTEIN TRUST 16 DEERFIELD PL TRABUCO CANYON, CA 92679	ELIZABETH STARK 279 E ECHO CANYON PL BREA, CA 92821	MARCIA CLARK 300 CANYON COUNTRY RD BREA, CA 92821
ROBERT & DANA MILLER 314 E CANYON COUNTRY RD BREA, CA 92821	MARCIANO & M I MARTINEZ TRUST 328 E CANYON COUNTRY RD BREA, CA 92821	ROBERT LOSEMAN TRUST 342 E CANYON COUNTRY RD BREA, CA 92821
BRUCE & JACQUELYN EDWARDS 356 E CANYON COUNTRY RD BREA, CA 92821	RANDALL SHINTAKU 370 E CANYON COUNTRY RD BREA, CA 92821	PERINE LOWE FAMILY TRUST 384 E CANYON COUNTRY RD BREA, CA 92821
BENJAMIN & EMMA MACARAEG 398 E CANYON COUNTRY RD BREA, CA 92821	HOWARD CHUDLER & T 2014 TRUST 387 TRABUCO CANYON WAY BREA, CA 92821	MITRA NEJAT-BINA 381 E TRABUCO CANYON WAY BREA, CA 92821

SAIL KIM 375 E TRABUCO CANYON WAY BREA, CA 92821	JOHN PURPURA TRUST 346 E TRABUCO CANYON WAY BREA, CA 92821	CHARLES GROSCOST TRUST 352 E TRABUCO CANYON WAY BREA, CA 92821
PATEL LILAVATI N L N REVOC TRUST 358 E TRABUCO CANYON WAY BREA, CA 92821	ED NETKA 364 TRABUCO CANYON WAY BREA, CA 92821	JESSE LLEWELLYN TRUST 370 E TRABUCO CANYON WAY BREA, CA 92821
OMAR & SANA FADEEL 376 E TRABUCO CANYON WAY BREA, CA 92821	JEFFREY STRAUSS TRUST 425 E SAND CANYON WAY BREA, CA 92821	WILLIAM KUGEL TRUST 417 E SAND CANYON WAY BREA, CA 92821
GUY AND FAYE GILBERT 413 E SAND CANYON WAY BREA, CA 92821	RANDALL TREBS 409 E SAND CANYON WAY BREA, CA 92821	RANDALL TREBS P.O.BOX 1628 BREA, CA 92822
DIANA ENGLER 2013 TRUST 405 SAND CANYON TRUST BREA, CA 92821	JOHN & CHERYL CARR 401 E SAND CANYON WAY BREA, CA 92821	WILLIAM THOMAS GUNNING 400 SAND CANYON WAY BREA, CA 92821
LI JUI-JUNG TRUST 404 E SAND CANYON WAY BREA, CA 92821	DOUGLAS MILLER 408 SAND CANYON WAY BREA, CA 92821	GREGG & DEBORAH BEGELL 412 E SAND CANYON WAY BREA, CA 92821
THOMAS & WINNIE KWAN 416 E SAND CANYON WAY BREA, CA 92821	BAHRAM & FARZANEH KHARRAZI 420 E SAND CANYON WAY BREA, CA 92821	KIM NAK HYEON & YU JEONG 424 SAND CANYON WAY BREA, CA 92821
JIM & DEBBIE TRUST 428 E STONE CANYON WAY BREA, CA 92821	PETER LEMBESIS TRUST 432 E STONE CANYON WAY BREA, CA 92821	LINDA & WALT ANDERSEN TRUST 436 E STONE CANYON WAY BREA, CA 92821
MICHAEL CURRAN TRUST 801 N DRIFTWOOD AVE BREA, CA 92821	STEVEN & LISA SEWELL FAMILY TRUST 803 N DRIFTWOOD AVE BREA, CA 92821	MICHAEL CORNFIELD TRUST 805 N DRIFTWOOD AVE BREA, CA 92821
CARLOS & LUISA CUEVA 807 N DRIFTWOOD AVE BREA, CA 92821	RUTH GALLEGOS 1099 OAK CANYON WAY BREA, CA 92821	DEBORAH WHITE TRUST 1098 N OAK CANYON WAY BREA, CA 92821

DANIEL JHUNG 1093 OAK CANYON WAY BREA, CA 92821	RODGER HUBER TRUST 1081 N OAK CANYON WAY BREA, CA 92821	EDWARD ORLOWSKI TRUST 1065 N OAK CANYON WAY BREA, CA 92821
LORAINE LISCANO TRUST 1051 N OAK CANYON WAY BREA, CA 92821	DAVID ETHINGTON TRUST 1082 N OAK CANYON WAY BREA, CA 92821	ORTIZ FAMILY TRUST 1066 N OAK CANYON WAY BREA, CA 92821
WILLIAM TILTON TRUST 1050 OAK CANYON WAY BREA, CA 92821	WILLIAM TILTON TRUST 1051 SITE DRIVE #270 BREA, CA 92821	DEAN WEISS REVOC TRUST 402 CANYON COUNTRY RD BREA, CA 92821
TIEN-EN YEN 410 CANYON COUNTRY RD BREA, CA 92821	TIEN-EN YEN 2139 HELOISE WAY PLACENTIA, CA 92870	JOHN & SUSAN LAW 418 E CANYON COUNTRY RD BREA, CA 92821
WILLIAM BRODER 426 E CANYON COUNTRY RD BREA, CA 92821	DAVID FENG 434 CANYON COUNTRY RD BREA, CA 92821	ROBERT ROY PETERS TRUST 442 E CANYON COUNTRY RD BREA, CA 92821
NEIL OKAZAKI TRUST 1025 N SHADOW CANYON RD BREA, CA 92821	SCOTT FUJIOKA TRUST 1017 N SHADOW CANYON RD BREA, CA 92821	ALLEN QUIRK 1009 N SHADOW CANYON RD BREA, CA 92821
GARY & HEIDI KENDLE 1003 N SHADOW CANYON RD BREA, CA 92821	DOUGLAS DYSART TRUST 975 N MALIBU CANYON RD BREA, CA 92821	PARESH & DIPTIBEN KHATRI 963 N MALIBU CANYON RD BREA, CA 92821
WELLS FARGO BANK NA 951 MALIBU CANYON RD BREA, CA 92821	WELLS FARGO BANK NA 4101 WISEMAN BLVD SAN ANTONIO, TX 78251	WILLIAM FURNAS 939 N MALIBU CANYON RD BREA,CA 92821
JAMES & KATHERINE CALKINS 925 MALIBU CANYON RD BREA, CA 92821	GARY STEIN TRUST 917 MALIBU CANYON RD BREA, CA 92821	GARY STEIN TRUST 18565 YORBA LINDA BLVD BREA, CA 92821
CHEN LI 909 N MALIBU CANYON RD BREA, CA 92821	CHEN LI 630 LENNOX CT BREA, CA 92821	ISIS BROS 901 N MALIBU CANYON RD BREA, CA 92821

ISIS BROS 100 N CITRUS ST NO – 508 WEST COVINA, CA 91791	GERALD FISHER TRUST 900 MALIBU CANYON RD BREA, CA 92821	THOMAS & OLGA MCKELLAR 908 N MALIBU CANYON RD BREA, CA 92821
HONG FENG 916 MALIBU CANYON RD BREA, CA 92821	BRYAN & VONNA LAUE 924 N MALIBU CANYON RD BREA, CA 92821	ANDREW JR & JEAN CORTY 932 N MALIBU CANYON RD BREA, CA 92821
FARRELL LIVING TRUST 940 N MALIBU CANYON RD BREA, CA 92821	ELIZABETH PRARTNADI & OMAR PRAWITE 948 MALIBU CANYON RD BREA, CA 92821	HARJASBIR & MALKEET MANN 956 N MALIBU CANYON RD BREA, CA 92821
COLIN WOOD TRUST 964 N MALIBU CANYON RD BREA, CA 92821	GORDON & STACIE SKOTARCZYK 972 N MALIBU CANYON RD BREA, CA 92821	PETER YOO TRUST 980 N MALIBU CANYON RD BREA, CA 92821
SANG KYU SHIM 988 MALIBU CANYON RD BREA, CA 92821	HANNI HILMAN 1024 SHADOW CANYON RD BREA, CA 92821	PETER JAMES MALDONADO & DIANA SANDOVAL 1016 SHADOW CANYON RD BREA, CA 92821
LAUREN HAINES TRUST 1008 N SHADOW CANYON TRUST BREA, CA 92821	JANE KWOUN 1000 N SHADOW CANYON RD BREA, CA 92821	DANA CORBITT 1009 N MALIBU CANYON WAY BREA, CA 92821
MATTHEW CLYDE GRANT & GABI MEIYING 1005 MALIBU CANYON RD BREA, CA 92821	TIMOTHY & EILEEN FAULKNER 1001 N MALIBU CANYON WAY BREA, CA 92821	SALAM & RAIDA HAMAD 1013 N MALIBU CANYON WAY BREA, CA 92821
DARRYN & ERIN JOHNNIE 1017 N MALIBU CANYON WAY BREA, CA 92821	MICHAEL & WENDY BAKER 1021 N MALIBU CANYON WAY BREA, CA 92821	JAY EVANS TRUST 1027 MALIBU CANYON RD BREA, CA 92821
DAVID & JANET MELANSON 1053 N MALIBU CANYON RD BREA, CA 92821	JERRY & SHEILA VAN DEUDEKOM 1065 N MALIBU CANYON RD BREA, CA 92821	LEDA POLTI 1096 MALIBU CANYON BREA, CA 92821
DANIEL & ROBIN LUNDY 1082 N MALIBU CANYON RD BREA, CA 92821	ANDREW PARK 1064 MALIBU CANYON RD BREA, CA 92821	MANUEL JR & SUSAN CAIPO 1054 MALIBU CANYON RD BREA,CA 92821

DONNA CLOUGHEN 1040 MALIBU CANYON RD BREA, CA 92821	WILLIAM BRAD MCALPIN 1026 N MALIBU CANYON RD BREA, CA 92821	LAWRENCE SMITH 521 E STONE CANYON WAY BREA, CA 92821
JONG-HWA SON TRUST 531 E STONE CANYON WAY BREA, CA 92821	BENIR & KAMIE RUANO 541 E STONE CANYON WAY BREA, CA 92821	ELESHIA CAROL HECKLER 551 E STONE CANYON WAY BREA, CA 92821
RANDALL & MARCIA FOWLER 561 E STONE CANYON WAY BREA, CA 92821	GAYLE KENAN TRUST 571 STONE CANYON WAY BREA, CA 92821	EDGARDO MARQUEZ 581 E STONE CANYON WAY BREA, CA 92821
JAMES KOH 580 E STONE CANYON WAY BREA, CA 92821	KUN SOO CHUNG 570 STONE CANYON WAY BREA, CA 92821	BRADLEY & VICTORIA BRIGHAM 560 E STONE CANYON WAY BREA, CA 92821
BRADLEY & VICTORIA BRIGHAM 17812 NEFF RANCH RD YORBA LINDA, CA 92886	WILLIAM LASSETER TRUST 550 E STONE CANYON WAY BREA, CA 92821	WILLIAM PRINDLE TRUST 540 E STONE CANYON WAY BREA, CA 92821
MARK WILLIAM & CANDIA SEIBLY 530 E STONE CANYON WAY BREA, CA 92821	YU-CHU LIU 520 STONE CANYON WAY BREA, CA 92821	AUGUSTINE & CYNTHIA TRAINO 510 E STONE CANYON WAY BREA, CA 92821
JOSEPH HEFNER TRUST 500 E STONE CANYON WAY BREA, CA 92821	CHRIS & JO PERINE 832 N DRIFTWOOD AVE BREA, CA 92821	GLORIA LUNA 824 N DRIFTWOOD AVE BREA, CA 92821
STEPHEN & TANIA GREENWOOD 816 N DRIFTWOOD AVE BREA, CA 92821	DEMETRI & VERONICA LEMBESIS 808 N DRIFTWOOD AVE BREA, CA 92821	BRENT & DIANE MARTINEZ 800 DRIFTWOOD AVE BREA, CA 92821
JOHN & SANDRA PETERSON 790 DRIFTWOOD AVE BREA, CA 92821	ORVILLE KIDWELL TRUST 799 DRIFTWOOD AVE BREA, CA 92821	ROLAND & BEATRIS BONADA 357 E BLOSSOM PL BREA, CA 92821
RICHARD WEBER TRUST 343 E BLOSSOM PL BREA, CA 92821	CHRISTOPHER ALAN WOLFS TRUST 337 E BLOSSOM PL BREA, CA 92821	TERRY GUINDON 329 E BLOSSOM PL BREA, CA 92821

TERRY GUINDON 23430 ROLLING MEADOWS DR PERRIS, CA 92570	FRANK & DIANNA ZENZOLA 321 E BLOSSOM PL BREA, CA 92821	PATRICK EUIJOON & SEUNG HEEE PARK 315 E BLOSSOM PL BREA, CA 92821
DOMINIC TRAPASSO TRUST 307 E BLOSSOM PL BREA, CA 92821	GLENN & CAROL OZIMA 301 E BLOSSOM PL BREA, CA 92821	DAVID MOTE 275 E BLOSSOM PL BREA, CA 92821
STACY CROSBY 255 E BLOSSOM PL BREA, CA 92821	TOBY HUDDLE FAMILY TRUST 235 E BLOSSOM PL BREA, CA 92821	ALMOND ELLIOTT ROY & ELLIOTT TRUST 215 E BLOSSOM PL BREA, CA 92821
BREA WOODS APTS LLC 195 W CENTRAL AVE BREA, CA 92821	BREA WOODS APTS LLC 1619 SUNSET RDG LAGUNA BEACH, CA 92651	KATIE & SEAN THOMANN 1180 ORANGEWOOD DR BREA, CA 92821
ELIZABETH HERNANDEZ TRUST 1170 ORANGEWOOD DR BREA, CA 92821	EZEQUIEL ADAM REYNOSO 1160 ORANGEWOOD DR BREA, CA 92821	DANIEL & VALERIE MURPHY 1150 ORANGEWOOD DR BREA, CA 92821
GLENN & ELIZABETH HALL 1140 ORANGEWOOD DR BREA, CA 92821	ROY REDMAN TRUST 1130 ORANGEWOOD DR BREA, CA 92821	ROY REDMAN TRUST P.O. BOX 5014 FULLERTON, CA 92838
MICHAEL DONAGHY TRUST 1120 ORANGEWOOD DR BREA, CA 92821	TODD MAC ANALLY 1110 ORANGEWOOD DR BREA, CA 92821	RUSSELL & SUSAN JAKUBAUSKAS 1100 ORANGEWOOD DR BREA, CA 92821
RUSSELL & SUSAN JAKUBAUSKAS 2018 UKIAH WAY UPLAND, CA 91784	BRADLEY GAST 1098 ORANGEWOOD DR BREA, CA 92821	JERALD & DEBRA MONROE 1090 ORANGEWOOD DR BREA, CA 92821
TIMOTHY KLING LIVING TRUST 1084 ORANGEWOOD DR BREA, CA 92821	EO CHRISTINE CHUL SOON & JOSEPH SU WOON SU 1080 ORANGEWOOD DR BREA, CA 92821	LINDA & DANIEL POORE 1070 ORANGEWOOD DR BREA, CA 92821
LINDA & DANIEL POORE 1312 BONITA DR LA HABRA HEIGHTS, CA 90631	TERRY HALCOM TRUST 1060 ORANGEWOOD DR BREA, CA 92821	WILLIAM & TAMI OTSUKA 1050 ORANGEWOOD DR BREA, CA 92821

STEVEN CRAWFORD & R C TRUST 1040 ORANGEWOOD DR BREA, CA 92821	SHIH CHIAO TUN TRUST 1030 ORANGEWOOD DR BREA, CA 92821	SHIH CHIAO TUN TRUST 1743 N ARTHUR DR BREA, CA 92821
MARQUIS & LORRAINE MC CRAW 1020 ORANGEWOOD DR BREA, CA 92821	DERRICK SOOHOO 1014 ORANGEWOOD DR BREA, CA 92821	VIRGIL BOLES 1010 ORANGEWOOD DR BREA, CA 92821
HANNAH MAE FERRANTE SURVIVORS TRUST 1000 ORANGEWOOD DR BREA, CA 92821	STATE OF CALIFORNIA DIVISION OF HWYS 13571 W CENTRAL AVE BREA, CA 92821	STATE OF CALIFORNIA DIVISION OF HWYS 1808 N BATAVIA ST ORANGE, CA 92865
JDO PROFESSIONAL PLAZA LLC 255 W CENTRAL AVE BREA, CA 92821	JDO PROFESSIONAL PLAZA LLC 445 26TH ST MANHATTAN BEACH, CA 90266	DOWNEY FUNDING CORP 275 W CENTRAL AVE BREA, CA 92821
DOWNEY FUNDING CORP 2800 E LAKE ST MINNEAPOLIS, MN 55406	BREA BREA LLC 285 W CENTRAL AVE BREA, CA 92821	BREA BREA LLC 3131 ELLIOTT AVE STE 500 SEATTLE, WA 98121
JANE JERRY & KRUEGER 355 W CENTRAL AVE BREA, CA 92821	JANE JERRY & KRUEGER 1881 SE SKYLINE DR SANTA ANA, CA 92705	RICARDO & YEZENIA CABIESES 902 ORANGEWOOD DR BREA, CA 92821
HYUNSOOK OH 904 ORANGEWOOD DR BREA, CA 92821	STEVEN DAVIS TRUST 906 ORANGEWOOD DR BREA, CA 92821	STEVEN WILLIAMS 908 ORANGEWOOD DR BREA, CA 92821
IRFAN GHAFOUR 910 ORANGEWOOD DR BREA, CA 92821	TOYOTA YUJI FAMILY REVOC LIVING TRUST 912 ORANGEWOOD DR BREA, CA 92821	ROBERT MARTIN WARREN 922 ORANGEWOOD DR BREA, CA 92821
MARIA & TIBOR LOSONCZI 928 ORANGEWOOD DR BREA, CA 92821	MATTHEW & JENNIFER PEWTHERS 932 ORANGEWOOD DR BREA, CA 92821	DAVID SAWYER 940 ORANGEWOOD DR BREA, CA 92821
JOHN DRAGOS 950 ORANGEWOOD DR BREA, CA 92821	ROBERT SALAS TRUST 968 ORANGEWOOD DR BREA, CA 92821	HOWARD & MARY PHILLIPS 978 ORANGEWOOD DR BREA, CA 92821

BRYAN CONRAD TRUST 984 ORANGEWOOD DR BREA, CA 92821	JOSEPH FRANCIS TRUST 992 ORANGEWOOD DR BREA, CA 92821	RALPH & PATRICIA RICHARDSON 1175 ORANGEWOOD DR BREA, CA 92821
ALFREDO LOPEZ 1165 ORANGEWOOD DR BREA, CA 92821	CASEY & JENNIFER SWINDELL 1155 ORANGEWOOD DR BREA, CA 92821	RYAN FELIX 1145 ORANGEWOOD DR BREA, CA 92821
ANTHONY KERHIN TRUST 1135 ORANGEWOOD DR BREA, CA 92821	ERIC & JANINA PATNO 1125 ORANGEWOOD DR BREA, CA 92821	ANN & JACOB POOZHIKALA 1115 ORANGEWOOD DR BREA, CA 92821
SATYA & BHAVANI KUCHIBHOTLA 1125 PONDEROSA AVE BREA, CA 92821	HARVEY DRYDEN TRUST 1097 ORANGEWOOD DR BREA, CA 92821	LINDA MIGUEL 1093 ORANGEWOOD DR BREA, CA 92821
SAMUEL KIM 1085 ORANGEWOOD DR BREA, CA 92821	RAUL & GRACIELA BARRERA 1075 ORANGEWOOD DR BREA, CA 92821	PAUL & ELENA RYAN 1065 ORANGEWOOD DR BREA, CA 92821
PAUL & ELENA RYAN 2251 WANDERING LANE BREA, CA 92821	KARLA WALK 1055 ORANGEWOOD DR BREA, CA 92821	MARTIN GARZA 1045 ORANGEWOOD DR BREA, CA 92821
DEE FOXX 1037 ORANGEWOOD DR BREA, CA 92821	ADHVARYU HITEN TRUST 1027 ORANGWOOD DR BREA, CA 92821	BRETT & LISA SKINNER 1013 ORANGEWOOD DR BREA, CA 92821
NICKO LIAUW 997 ORANGEWOOD DR BREA, CA 92821	BEN & MARY ORTIZ 983 ORANGEWOOD DR BREA, CA 92821	FRANCES & KEITH QUARANTA 977 ORANGEWOOD DR BREA, CA 92821
CAROL PERSINGER TRUST 957 ORANGEWOOD DR BREA, CA 92821	BRIAN DINI 943 ORANGEWOOD DR BREA, CA 92821	CHI MEI CHAN 935 ORANGEWOOD DR BREA, CA 92821
LEE BENT TRUST 927 ORANGEWOOD DR BREA, CA 92821	JOSEPH LEE BENT TRUST 919 ORANGEWOOD DR BREA, CA 92821	LUKE & DAVINA FERRY 911 ORANGEWOOD DR BREA, CA 92821

GLENN ROLBIECKI TRUST 909 ORANGEWOOD DR BREA, CA 92821	DELBERT & BARBARA SHEPARD 907 ORANGEWOOD DR BREA, CA 92821	GEORGE & REMONA SALAS 905 ORANGEWOOD DR BREA, CA 92821
TODD GAMBILL 903 ORANGEWOOD DR BREA, CA 92821	LUIS & MARIA SERNA 901 ORANGEWOOD DR BREA, CA 92821	BHASKAR TATKE 1002 MARIPOSA DR BREA, CA 92821
JEFFREY ALAN & SOON-YA GORDON 1004 MARIPOSA DR BREA, CA 92821	SOCORRO RAMIREZ 1006 MARIPOSA DR BREA, CA 92821	MAROUN NTANIOS 1008 MARIPOSA DR BREA, CA 92821
SHENG & LINDA LIN 1010 MARIPOSA DR BREA, CA 92821	SHENG & LINDA LIN 1564 SAN JUAN DR BREA, CA 92821	THOMAS CAPACASA 1012 MARIPOSA DR BREA, CA 92821
GUADALUPE & JOSEFINA ROBLES 1020 MARIPOSA DR BREA, CA 92821	DEANA POPYK 1030 MARIPOSA DR BREA, CA 92821	JASON MOORE 1060 MARIPOSA DR BREA, CA 92821
STANLEY MOERBEEK 1080 MARIPOSA DR BREA, CA 92821	DIANE MADELINE AMENDT 1090 MARIPOSA DR BREA, CA 92821	GORDON LEE HOWARD TRUST 1100 MARIPOSA DR BREA, CA 92821
GORDON LEE HOWARD TRUST 17290 DRAKE ST YORBA LINDA, CA 92886	AIDA WHITE TRUST 1110 MARIPOSA DR BREA, CA 92821	ANNALISA GOMEZ 1120 MARIPOSA DR BREA, CA 92821
JERRY & MARGARET LOWE 1130 MARIPOSA DR BREA, CA 92821	JERRY & MARGARET LOWE 2015 KANOLA RD LA HABRA HEIGHTS, CA 90631	WILLIAM & SYLVIA CLINE 1140 MARIPOSA DR BREA, CA 92821
CARLOS CHRISTIAN & JILL PAVIOLO 1150 MARIPOSA DR BREA, CA 92821	JOHN & HELEN BYUN 1160 MARIPOSA DR BREA, CA 92821	ELMER CLARK 1170 MARIPOSA DR BREA, CA 92821
THOMAS ALLEN TRUST 1190 MARIPOSA DR BREA, CA 92821	TED & BETTY WILLIAMS 1200 MARIPOSA DR BREA, CA 92821	STEVE & PENNY BARTOSH 1210 MARIPOSA DR BREA, CA 92821

TERANCE & MARCIA DUTHOY 1220 MARIPOSA DR BREA, CA 92821	ANGELO TERRACINA 1230 MARIPOSA DR BREA, CA 92821	DAVID REISS & RENEE REBICH 1240 MARIPOSA DR BREA, CA 92821
SHIRLEY & ROBERT SWENDENER TRUST 1250 MARIPOSA DR BREA, CA 92821	SHIRLEY & ROBERT SWENDENER TRUST PO BOX 3015 BREA, CA 92821	LORI ELLIS 1260 MARIPOSA DR BREA, CA 92821
NADA JEANINE TRABOULSI 1270 MARIPOSA DR BREA, CA 92821	ROY MITCHELL HANKS 1280 MARIPOSA DR BREA, CA 92821	JERRY & MARGARET LOWE 1290 MARIPOSA DR BREA, CA 92821
NOEL & CYNTHIA HUGHES 1300 MARIPOSA DR BREA, CA 92821	TIM & DARLA BAULCH 1295 MARIPOSA DR BREA, CA 92821	CATHY ANN MATTHEWS 1285 MARIPOSA DR BREA, CA 92821
TUNG MINH HUYNH TRUST 1275 MARIPOSA DR BREA, CA 92821	JIE YIN 1265 MARIPOSA DR BREA, CA 92821	LUPE TOVAR TRUST 1255 MARIPOSA DR BREA, CA 92821
LUPE TOVAR TRUST 1806 VISTA DEL ORO FULLERTON, CA 92831	JEZIEL & NOHEMY FERNANDEZ 1245 MARIPOSA DR BREA, CA 92821	CANDRA VALKO TRUST 1235 MARIPOSA DR BREA, CA 92821
ARMANDO & LILIA MEDRANO 1225 MARIPOSA DR BREA, CA 92821	EARL & SANDRA DUNHAM 1215 MARIPOSA DR BREA, CA 92821	EARL & SANDRA DUNHAM PO BOX 391491 ANZA, CA 92539
BRIAN & SUE YOON 1215 PONDEROSA AVE BREA, CA 92821	SUNG & HYUN BAIK 1225 PONDEROSA AVE BREA, CA 92821	MICHELLE & PATRICK NICKEL 1235 PONDEROSA AVE BREA, CA 92821
MUNJID ISSA 1245 DRIFTWOOD PL BREA, CA 92821	JOHANNA LUNDGREN 1247 DRIFTWOOD PL BREA, CA 92821	JOHANNA LUNDGREN 10916 PEACH GROVE ST #3 BREA, CA 92821
MARK & STACY FREEMAN 1249 DRIFTWOOD PL BREA, CA 92821	KAREN HAMMOND 1251 DRIFTWOOD PL BREA, CA 92821	CORA SMITH 1253 DRIFTWOOD PL BREA, CA 92821

MARAIS KATHLEEN DES 1255 DRIFTWOOD PL BREA, CA 92821	PHILIP PHIKYU & HEERA LEE 1257 DRIFTWOOD PL BREA, CA 92821	MICHAEL CALLEJAS FRIAS 2013 TRUST 1261 DRIFTWOOD PL BREA, CA 92821
SHARON & THOMAS PAQUETTE 1265 DRIFTWOOD PL BREA, CA 92821	KENNETH & JEANNETTE WESTPHAL 1275 DRIFTWOOD PL BREA, CA 92821	FRANCIS MEIDT & WAIKIU CHAN 1285 DRIFTWOOD PL BREA, CA 92821
HENRY WONG 1295 PONDEROSA AVE BREA, CA 92821	ALDO EDMUNDS 1315 PONDEROSA AVE BREA, CA 92821	ALDO EDMUNDS 440 DEVONSHIRE AVE BREA, CA 92821
JULIE ANNE ETAL HANGO 1325 PONDEROSA AVE BREA, CA 92821	SUSAN HAYES TRUST 1335 PONDEROSA AVE BREA, CA 92821	JEFFREY HILL 1345 PONDEROSA AVE BREA, CA 92821
MATTHEW MC GILVRAY 1355 HAZELWOOD PL BREA, CA 92821	LARRY & JENNIFER STRONG 1365 HAZELWOOD PL BREA, CA 92821	DAVID TOTH TRUST 1367 HAZELWOOD PL BREA, CA 92821
MIKE & TERESA CRESCIONE 1369 HAZELWOOD PL BREA, CA 92821	GERALDINE MARCUM TRUST 1371 HAZELWOOD PL BREA, CA 92821	JEFFREY & WENDY SIMPSON 1373 HAZELWOOD PL BREA, CA 92821
CHARLES & STACY PURDOM 1375 HAZELWOOD PL BREA, CA 92821	CHRISTINA HOROWITZ 1377 HAZELWOOD PL BREA, CA 92821	RICHARD B FINNIE 2ND 1379 HAZELWOOD PL BREA, CA 92821
JOHN KIM 1381 HAZELWOOD PL BREA, CA 92821	CAROL ANN THOMPSON 1383 HAZELWOOD PL BREA, CA 92821	ROBERT & KIMBERLY SCOTT 1385 HAZELWOOD PL BREA, CA 92821
DAVID & ANNE BEHOTEGUY 1395 HAZELWOOD PL BREA, CA 92821	WILLIAM LARSON TRUST 1399 HAZELWOOD PL BREA, CA 92821	JIVA & AURICA BRANCOV 1435 PONDEROSA AVE BREA, CA 92821
THERESA HOOGHKIRK 1455 PONDEROSA AVE BREA, CA 92821	LUCINDA & MICHAEL CROWE 1450 PONDEROSA AVE BREA, CA 92821	RICARDO VILLEGAS 1440 PONDEROSA AVE BREA, CA 92821

BASSEM NASSAR 1430 PONDEROSA AVE BREA, CA 92821	JOSEPH KIN-WING TAM TRUST 1400 PONDEROSA AVE BREA, CA 92821	JOSEPH KIN-WING TAM TRUST 11719 ELMROCK AVE BREA, CA 92821
CHRISTINE ALLEMAND 1380 PONDEROSA AVE BREA, CA 92821	CHRISTINE ALLEMAND 654 N CLIFFWOOD BREA, CA 92821	PHYLLIS MERCER TRUST 1360 PONDEROSA AVE BREA, CA 92821
JOHNNY PERRY MEDEIROS TRUST 1350 PONDEROSA AVE BREA, CA 92821	MANUEL CHRIS CASTILLO 1340 PONDEROSA AVE BREA, CA 92821	ALICIA FOWERS 1330 PONDEROSA AVE BREA, CA 92821
STEVEN & MELISSA THOMAS 1320 PONDEROSA AVE BREA, CA 92821	WILLIAM VIERRA 1300 PONDEROSA AVE BREA, CA 92821	DAVID & DEBORAH GROVE 1290 PONDEROSA AVE BREA, CA 92821
LEIGH SADDINGTON TRUST 1280 PONDEROSA AVE BREA, CA 92821	LEIGH SADDINGTON TRUST 907 CARLSON DR HUNTINGTON BEACH, CA 92646	TODD & CHARLANNE MERIZAN 1250 PONDEROSA AVE BREA, CA 92821
DANIEL & EMILY KIEFER 1230 PONDEROSA AVE BREA, CA 92821	MICHAEL BECHER TRUST 1220 PONDEROSA AVE BREA, CA 92821	JOHN MC KAY TRUST 1200 PONDEROSA AVE BREA, CA 92821
FREE MARGUERITE M TRUST 1240 PONDEROSA AVE BREA, CA 92821		

APPENDIX B
2017 NOP/IS WRITTEN COMMENT LETTERS AND CARDS

From: Hui Sung Choe [mailto:hchoe@aqmd.gov]
Sent: Thursday, May 18, 2017 7:28 AM
To: Shannon, Kevin
Subject: RE: Brea Canyon Road Widenig Project

Hi, Kevin. Sorry for the lengthy email yesterday. I'm getting ready to leave town today and didn't have time to condense it or make it "pretty". Just wanted to share with you that there was a collision on Brea Canyon Road this morning. Looked like a head on collision. Huge pickup truck and a compact older vehicle. Pickup truck looked fine. The compact was totaled. This was north of Tonner Canyon and the 57 on/off ramps. Thought you could use that as an example next week.

Thank you.

Hui Sung Choe

From:	RAYMOND NAPLES
To:	Shannon, Kevin
Subject:	Brea Canyon Road Project
Date:	Thursday, May 25, 2017 8:34:43 AM

To: Kevin Shannon

From: Raymond Naples
Resident
1153 Grand Cyn
Brea, Ca 92821

After attending a meeting on 5.24.2017, I have several comments and concerns about the project:

1. I believe that this project will draw more traffic than currently exists and it may be more traffic than forecasted by the study due to future development beyond this area and the usage of the 57 Frwy. In view of this, I feel a sound wall would be necessary along the east side of the road just north of Canyon Country Road.

2. As you know, a traffic signal exists at the intersection of Brea Blvd and Canyon Country Road. On the north bound side of Brea Blvd, cars and trucks run the red light. For drivers turning left onto Brea Blvd from Canyon Country Road, this is dangerous. It is not possible to see these speeding vehicles as the intersection has a blind spot for north bound traffic. Can the intersection be moved westward to allow for left hand tuning vehicles see the north bound traffic?

3. Currently, during rush hour traffic, some vehicles travelling north bound on Brea Blvd drive into the neighborhood at Canyondale heading to Canyon Country Road in order to "jump ahead" of traffic. This clogs the intersection of Grand Canyon Road and Canyon Country Road. It also backs up traffic on Grand Canyon Road and backs up traffic up Canyon Country Road. This impedes residents from leaving and getting to their homes; also, dangerous for children of the neighborhood. Can some type of restriction be created to eliminate this problem?

4. Many trucks currently use Brea Canyon Road; enhancing the road will draw more trucks. Can a time restriction be created for trucks to direct them to the 57 Frwy?

Thank you,

Raymond Naples

City of Brea

May 25, 2017

Mr. Kevin Shannon
Contract Planner
OC Development Services/Planning
300 N Flower Street
Santa Ana, CA 92703

VIA EMAIL AND MAIL

SUBJECT: NOTICE OF PREPARATION (NOP) FOR BREA CANYON ROAD WIDENING PROJECT (EIR NO. 628)

Dear Mr. Shannon:

I am writing in response to the subject Notice of Preparation (NOP) for an Environmental Impact Report (EIR) for the proposed widening of Brea Canyon Road. The City of Brea appreciates this opportunity to provide input regarding the EIR and areas of study associated with the project's consideration. Our comments are provided below.

The EIR should analyze and provide discussion and, potentially, mitigation measures regarding the potential for impacts to:

1. City of Brea traffic circulation. The EIR should provide analysis and discussion and resolution regarding anticipated impacts to Brea streets and any potential for reductions to road capacity and levels of service for signalized intersections.

2. Growth inducing impacts. The EIR should provide analysis and discussion and resolution regarding any potential growth inducing impacts the proposed road widening may create.

3. City of Brea facilities and infrastructure. The EIR should provide an analysis and discussion and resolution with respect to any impacts to City facilities/infrastructure such as water, sewer, storm drain, etc.

4. Consistency with the Brea General Plan. The EIR should provide analysis and discussion and resolution of the proposed project's consistency with the Brea General Plan. Most specifically, related to the GP's goals, objectives, and policies regarding this specific roadway and related trails. The Brea General Plan identifies this road way as a "modified secondary arterial" and provides for specific guidance regarding design, lane configuration, and inclusion of a Class 1 bikeway. The EIR should discuss and resolve (e.g. mitigation measures) the project's consistency with the Brea GP. A digital copy of the Brea General Plan is enclosed for your reference.

City Council **Cecilia Hupp** *Mayor* **Glenn Parker** *Mayor Pro Tem* **Christine Marick** *Council Member* **Marty Simonoff** *Council Member* **Steven Vargas** *Council Member*

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The EIR's analysis should be comprehensive in nature and provide quantitative as well as qualitative information regarding these important areas of environmental review and any necessary mitigation.

The City of Brea appreciates your consideration of our comments regarding this NOP. Please place us on your distribution list for any subsequent actions or updates regarding this project and its environmental review and feel free to reach me at (714) 990-7146 if you should have any questions.

Sincerely,

David M. Crabtree, AICP
Community Development Director

Enclosure – Digital copy of Brea General Plan

CC Bill Gallardo, City Manager
Chris Emeterio, Assistant City Manager
Tony Olmos, Public Works Director
Steve Kooyman, City Engineer
Jennifer Lilley, City Planner
Sean Matlock, Community Services Deputy Director

Comments regarding the project associated with Draft EIR #628

These comments are made pursuant to CEQA Guidelines Section 15082(b). The proposed project calls for the widening of a 1.75 mile section of Brea Canyon Road to add an additional lane in each direction for a total of four lanes across.

As the Notice of Preparation of a Draft EIR ("Notice") states, the project would necessitate widening 5 curves, building three bridges that cross the creek, erecting retaining walls along steep sloped areas, and adding a traffic signal at the intersection of Tonner Canyon and Brea Canyon Roads.

We believe the project has significant adverse impacts on the environment that can't be mitigated, and therefore the project should not be approved as it poses significant public health and safety concerns.

Those familiar with Brea Canyon Road where the widening is proposed knows that there is heavy traffic especially in the afternoons of weekdays travelling north on Brea Canyon from State College until just before the 57 Freeway intersects with Brea Canyon Road. The traffic often comes to a stop at Canyondale. The main reason for the traffic is the slow or backed up traffic on the 57 Freeway, whereby motorists get off the 57 Freeway and travel north on Brea Canyon. Many of the motorists that travel on Brea Canyon do not live in Brea and travel through Brea from other regions including Los Angeles, Riverside, and San Bernardino counties to work in Orange County.

In essence, the proposed project while attempting to ease traffic congestion will add to traffic congestion because the 57 Freeway is more than saturated with traffic and adding two lanes on an alternative south-north corridor will not reduce traffic congestion at all but add to traffic congestion in Brea, especially on State College and Brea Canyon Roads. Residents of Brea on bad traffic days where the 57 is totally jammed often have to wait in traffic as much as 20-25 minutes to get from Lambert and State College to Brea Boulevard and State College. This additional traffic will bring about higher volume of traffic going through Brea which means more traffic, accidents, wear and tear of local roads, traffic noise and air pollution. The health and safety of Brea residents will be significantly and adversely impacted.

The project itself is estimated to take 3.5 years and require removal of existing slopes as much 50 feet in height. This enormous amount of earth being removed itself has an adverse environmental impact to the area. During the project is very likely that the two lane highway will be reduced to one lane or even closed during construction. The massive removal of dirt will necessitate massive retaining walls and create a valley- like part of the road that is used by many bicyclists, hikers and natural fauna whose lives will be imperiled by the altered terrain. Also the fresh water creek that runs along Brea Canyon Road that sustains the natural wild life of plants and animals native to the area will be polluted by the traffic pollution run off including motor oil, transmission and brake fluid, and battery acid leaking and other spills, and natural rain runoff over the polluted roads. We request that the draft EIR carefully considerate these comments and address all of these concerns, and whether the adverse impacts can be adequately mitigated, if at all.

Tom and Winnie Kwan

DEPARTMENT OF TRANSPORTATION
DISTRICT 12
1750 EAST 4TH STREET, SUITE 100
SANTA ANA, CA 92705
PHONE (657) 328-6000
FAX (657) 328-6522
TTY 711
www.dot.ca.gov/d12

Serious Drought.
Making Conservation
A California Way of Life.

May 24, 2017

Mr. Kevin Shannon,
Orange County Development Services
300 N. Flower Street
Santa Ana, CA. 92703

File: IGR/CEQA
SCH#: 2017051005
Log #: ORA 2017-00564
SR-57

Dear Mr. Shannon:

Thank you for the opportunity to review and comment on the Notice of Preparation (NOP) for the Brea Canyon Road Widening Project. The Orange County Public Works Department (OCPW) has identified the need to widen Brea Boulevard/Brea Canyon Road (hereafter referred to as Brea Canyon Road) consistent with the Orange County Master Plan of Arterial Highways (MPAH). The Brea Canyon Road Widening Project (Project) would be located partially in the City of Brea, from Canyondale Drive to the north City limit, and partially in unincorporated Orange County, from the north City limit to the Orange County/Los Angeles County boundary line, a total length of approximately 9,265 linear feet or 1.75 miles.

The Project is intended to address congestion during the A.M and P.M. peak hours and is expected to enhance the Level of Service (LOS) from an existing LOS F to LOS A, substantially improving traffic flow through the Brea Boulevard/Brea Canyon area. Additionally, the Project is intended to address safety by improving the design of existing curves within the project limits and reducing the potential for motorist conflicts. This would be accomplished by widening Brea Canyon Road from two to four lanes (two lanes each direction, divided by median barrier/raised median), realigning five existing curves within the project limits, and installing a new traffic signal at the intersection of Brea Canyon Road and Tonner Canyon Road.

The mission of Caltrans is to provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability. The Local Development-Intergovernmental Review (LD-IGR) Program reviews land use projects and plans through the lenses of our mission and state planning priorities of infill, conservation, and travel-efficient development. To ensure a safe and efficient transportation system, we encourage early consultation and coordination with local jurisdictions and project proponents on all development projects that utilize the multimodal transportation network. We provide these comments consistent with the State's smart mobility goals that support a vibrant economy, and build communities, not sprawl.

The California Department of Transportation (Caltrans) is a commenting agency on this project at this time however, our status will change to a responsible agency if an encroachment permit is needed. Caltrans has the following comments for your consideration:

1. The project proposes to widen Brea Canyon Road from Canyondale Drive (City of Brea) to the Orange County/Los Angeles County boundary line. Within this segment Brea Canyon Rd intersects the SB SR-57 on ramp at an uncontrolled intersection. Traffic Operations requests that this intersection be analyzed using the methodologies of the Highway Capacity Manual (2010). If there is need for controlling the intersection, refer to the attached Caltrans' Policy Directive on Intersection Control Evaluation (ICE). Also, a Traffic Management Plan (TMP) would need to be developed to address impacts on SR-57 facilities during construction.
http://ld-igr-gts.dot.ca.gov/uploads/12/6314/8114/ICE_13-02.pdf
http://ld-igr-gts.dot.ca.gov/uploads/12/6314/8114/ICE_13-021.pdf

2. An encroachment permit must be obtained for all proposed activities related to the placement of encroachments within, under, or over the State highway rights of way. Some examples of work requiring an encroachment permit are: utilities, excavations, encroachment renewals, advertisements (when allowed by statute), vegetation planting or trimming, surveys, mail boxes, driveways, installation or removal of tire chains for compensation, special events, and commercial filming activities.

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 call Aileen Kennedy at (657) 328-6276.

Sincerely,

Aileen Kennedy

for MAUREEN EL HARAKE
Branch Chief, Regional-Community-Transit Planning
District 12

c: Lee Haber, Traffic Operations Northeast
Eric Dickson, Landscape
Roj Gohil, Permits
OPR, State Clearinghouse

Robert Levering

1203 Grand Canyon

Brea, Ca. 92821

Dear Kevin Shannon, Contract Planner:

I would like to express my concerns about the proposed Brea Canyon Road Widening Project.

1. ~~Is this project being~~ cordinated with Los Angeles County? It would seem logical that a four lane road being corrected to a two lane road from the county line to a four lane road to the 57 Freeway entrance and then back to a two lane road would still create bottle necks and therefore delays.

2. Will the Brea Canyon Road be closed during the full 3 years plus of construction? This would create a huge traffic log jams on the existing routes (57 Freeway) and many unhappy people who do not use the the Brea Canyon road.

3. Is the funding stable and dedicated to the completion of the project? One does not know the future of revenue and expenditures that far into the future. We are not the favorite State of the current Administration and Federal funds, if the state runs short, will not be forthcoming .

4. A personal reason regarding this project: Our house if you look at the map will be next to the new expansion. Will there be any plan to lesson the noise of the increase traffic behind our house? Not too much noise now except for an occasional horn.

5. Will there be a protection for wild life in the canyon do the increase size of the road. Except for a pesky racoon, I would hope plans are made to allow for animal crossings.

I am hoping to make the meeting onn the 24th but in case I am unable I hope that this letter's issues will be addressed at the hearing. Thank you for allowing a response nand I hope I will be mable to hear some answers from my concerns and others whom may have other issues.

Sincerely Yours

Robert Levering

RECEIVED
MAY 24 2017
COUNTY OF ORANGE

State of California • Natural Resources Agency
Edmund G. Brown Jr., *Governor*
Department of Conservation
Division of Oil, Gas, and Geothermal Resources – District 1
5816 Corporate Avenue • Suite 100
Cypress, CA 90630
(714) 816-6847 • FAX (714) 816-6853

May 23, 2017

Mr. Kevin Shannon, Contract Planner
County of Orange, OC Public Works
OC Development Services/Planning
300 North Flower Street
Santa Ana, CA 92703
Kevin.Shannon@ocpw.ocgov.com

Dear Mr. Shannon:

NOP – NOTICE OF PREPARATION OF A DRAFT ENVIRONMENT IMPACT REPORT
BREA CANYON ROAD WIDENNING PROJECT
SCH: 2017051005

The Department of Conservation's Division of Oil, Gas, and Geothermal Resources (Division) has reviewed the above referenced project for impacts with Division jurisdictional authority. The Division supervises the drilling, maintenance, and plugging and abandonment of oil, gas, and geothermal wells in California. The Division offers the following comments for your consideration.

The project area is located in Orange County within the Brea-Olinda oil field boundary. Division records indicate that there are at least five oil and gas wells located within or in close proximity to the project boundary as identified in the application.

The scope and content of information that is germane to Division's responsibility are contained in Section 3000 et seq. of the Public Resources Code, and administrative regulations under Title 14, Division 2, Chapters 2, 3 and 4 of the California Code of Regulations.

If any wells, including any plugged, abandoned or unrecorded wells, are damaged or uncovered during excavation or grading, remedial plugging operations may be required. If such damage or discovery occurs, the Division's district office must be contacted to obtain information on the requirements and approval to perform remedial operations.

The possibility for future problems from oil and gas wells that have been plugged and abandoned, or reabandoned, to the Division's current specifications are remote. However, the Division recommends that a diligent effort be made to avoid building over any plugged and abandoned well.

To ensure proper review of this project, please contact our Construction Well Site Review Program for a well consultation. The Division has available an informational packet entitled, "Construction-Site Plan Review Program". This document is available on the Division's website at http://www.conservation.ca.gov/dog/for_operators/Pages/construction_site_review.aspx.

If you have any questions, please contact me at (714) 816-6847 or via email at Grace.Brandt@conservation.ca.gov.

Sincerely,

Grace P. Brandt
Associate Oil and Gas Engineer

cc: The State Clearinghouse - Office of Planning and Research, state.clearinghouse@opr.ca.gov
Tim Shular, DOC OGER, tim.shular@conservation.ca.gov
Crina Chan, DOC OGER, crina.chan@conservation.ca.gov
Jan Perez, DOGGR CEQA Unit, jan.perez@conservation.ca.gov
Chris McCullough, Facilities and Environmental Supervisor, chris.mccullough@conservation.ca.gov
Environmental CEQA File

From: Hui Sung Choe [mailto:hchoe@aqmd.gov]
Sent: Wednesday, May 17, 2017 11:16 AM
To: Shannon, Kevin
Subject: RE: Brea Canyon Road Widenig Project

Good morning, Kevin! Thank you so much for the copy of the plan. I am really glad that Orange County is improving roads for safety reasons.

As I mentioned over the phone, I so wish I could attend this meeting, but I will be out of town next week and would like to submit my written comments via this email.

It's great that you have recognized that Brea Canyon Road is unsafe. I completely agree with you. There is a 55 MPH speed limit sign just north of the Canyon Country Road traffic signal. From the 55 MPH speed limit sign heading north, the road starts out curvy. There are at least three blind curves in that section alone. The Tonner Canyon Road intersection and the entrance to the 57 Freeway definitely add to the unsafe nature of the road. Also, as you pointed out, there are little or no shoulders for biking or walking along Brea Canyon Road.

The plan is to start construction in 2020 or 2021 and complete construction in 3.5 years. Also, during the 3.5 years of construction, bikers and pedestrians will be prohibited from the road.

I know it takes much time for these types of projects, but we are looking at 7 years until completion. I personally will be retired in 6 years, and I am looking for a way to commute by bicycle while I'm currently working in Diamond Bar. So, until then, I am proposing that immediate changes be made to Brea Canyon Road. Your office has already declared Brea Canyon Road as an unsafe road at 55 MPH. Why not reduce the speed limit now? It is an immediate simple, quick and cheap solution. Yes, the motorists may not be thrilled with it, but the plan seems to appease the commuters from LA County using Brea Canyon Road as a 6th lane extension of the 57 freeway. It would be greatly appreciated if the Orange County residents were also considered in the plan.

The Federal Highway Authority's definition of Brea Canyon Road is a "local" road. Currently, with no median barricade, a narrow road with two lanes is defined as:

local road that runs parallel to an expressway and allows local traffic to gain access to property.

Again, there is a freeway paralleling the Brea Canyon Road for those who wish to travel at faster speeds.

The following is a speed guideline from the FHWA document:
https://safety.fhwa.dot.gov/speedmgt/ref_mats/fhwasa12004/

Table 2. Base Speed for the Classification and Land Use Combination

		Land Use							
		Rural				Urban			
		Undivided		*Divided*		*Undivided*		*Divided*	
Classification		**1 lane per direction**	**2+ lanes per direction**	**1 lane per direction**	**2+ lanes per direction**	**1 lane per direction**	**2+ lanes per direction**	**1 lane per direction**	**2+ lanes per direction**
Arterial	Major	55 mph	60 mph	60 mph	70 mph	50 mph		55 mph	
		(90 km/h)	(100 km/h)	(100 km/h)	(110 km/h)	(80 km/h)		(90 km/h)	
	Minor	50 mph	55 mph	55 mph	60 mph	45 mph		50 mph	
		(80 km/h)	(90 km/h)	(90 km/h)	(100 km/h)	(70 km/h)		(80 km/h)	
Collector	Major	45 mph	50 mph	50 mph	55 mph	45 mph		50 mph	
		(70 km/h)	(80 km/h)	(80 km/h)	(90 km/h)	(70 km/h)		(80 km/h)	
	Minor	35 mph	45 mph	45 mph	50 mph	35 mph		45 mph	
		(60 km/h)	(70 km/h)	(70 km/h)	(80 km/h)	(60 km/h)		(70 km/h)	
Local		35 mph				30 mph			
		(60 km/h)				(50 km/h)			

Lane = through lane

Divided = a median that separates travel lanes of traffic in opposing directions, which may be flush with, raised above, or depressed below adjacent travel lanes

Table 4. Speed Limits for Injury Minimization (Adapted from Reference 28)

Road type	Speed Limit, mph (km/h)
Roads with a mix of motorized and unprotected road users (i.e., pedestrians and cyclists)	20 (30)
Roads with uncontrolled access where side impact crashes can result	30 (50)
Undivided roads where head-on crashes can result	45 (70)
Controlled access facilities with a physical median separation, where at-grade access and non-motorized road users are prohibited	>60 (>100)

Los Angeles County has adopted the Vision Zero initiative to make their roads safer. The initiative also finds the speed limit on a road like Brea Canyon Road to be excessive and unsafe.

So, in reference to the Brea Canyon Road Widening Project, I urge Orange County Public Works to consider focusing more on bicycle, pedestrian and residential friendly road improvements, not an extension of the 57 freeway for speedy commuters. Also, reduce the speed limit with the widening project. 55 mph is not bicycle or pedestrian friendly. I fully and enthusiastically support the idea of designating the road as a scenic highway with reduced speeds. As an immediate action, I would like to request that the speed limit be reduced to 35 MPH with radar speed signs. At a 35 mph speed limit, most motorists will likely exceed it by 5 to 10 mph anyway.

Thank you so much for accepting my comments. Please add my email address to any notifications. I would like to attend future workshops, meetings, etc.

Hui Sung Choe
AQ Engineer II
Engineering and Permitting Division
Chemical Unit
909-396-2259
hchoe@aqmd.gov

South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765-4178

From: Shannon, Kevin [mailto:Kevin.Shannon@ocpw.ocgov.com]
Sent: Friday, May 12, 2017 3:28 PM
To: Hui Sung Choe <hchoe@aqmd.gov>
Subject: Brea Canyon Road Widenig Project

Please find attached the Notice of Availability for the Brea Canyon Road Widening Project. As I mentioned on the phone, written comments submitted via email are accepted.

Thanks,

Kevin

Kevin Shannon, CGBP
Contract Planner
OC Development Services
300 N. Flower Street, 1st Floor
Santa Ana, CA 92703-4048
Office: 714.667.1632
Fax: 714.667.7560
Email: kevin.shannon@ocpw.ocgov.com
Website: http://ocpublicworks.com/devsrv

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

SENT VIA USPS AND E-MAIL: May 19, 2017

Kevin.Shannon@ocpw.ocgov.com
Kevin Shannon, Contract Planner
OC Development Services/Planning – OC Public Works
300 N. Flower Street
Santa Ana, CA 92703

Notice of Preparation of a Draft Environmental Impact Report for the Brea Canyon Road Widening Project (EIR No. 628)

The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mentioned document. The SCAQMD staff's comments are recommendations regarding the analysis of potential air quality impacts from the proposed project that should be included in the Draft Environmental Impact Report (EIR). Please send SCAQMD a copy of the Draft EIR upon its completion. Note that copies of the Draft EIR that are submitted to the State Clearinghouse are not forwarded to SCAQMD. Please forward a copy of the Draft EIR directly to SCAQMD at the address shown in the letterhead. **In addition, please send with the Draft EIR all appendices or technical documents related to the air quality, health risk, and greenhouse gas analyses and electronic versions of all air quality modeling and health risk assessment files[1]. These include emission calculation spreadsheets and modeling input and output files (not PDF files). Without all files and supporting documentation, SCAQMD staff will be unable to complete our review of the air quality analyses in a timely manner. Any delays in providing all supporting documentation will require additional time for review beyond the end of the comment period.**

Air Quality Analysis

The SCAQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. The SCAQMD recommends that the Lead Agency use this Handbook as guidance when preparing its air quality analysis. Copies of the Handbook are available from the SCAQMD's Subscription Services Department by calling (909) 396-3720. More recent guidance developed since this Handbook was published is also available on SCAQMD's website at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993). SCAQMD staff also recommends that the Lead Agency use the CalEEMod land use emissions software. This software has recently been updated to incorporate up-to-date state and locally approved emission factors and methodologies for estimating pollutant emissions from typical land use development. CalEEMod is the only software model maintained by the California Air Pollution Control Officers Association (CAPCOA) and replaces the now outdated URBEMIS. This model is available free of charge at: www.caleemod.com.

The SCAQMD has also developed both regional and localized significance thresholds. The SCAQMD staff requests that the Lead Agency quantify criteria pollutant emissions and compare the results to the recommended regional pollutant emissions significance thresholds to determine air quality impacts. The

[1] Pursuant to the CEQA Guidelines Section 15174, the information contained in an EIR shall include summarized technical data, maps, plot plans, diagrams, and similar relevant information sufficient to permit full assessment of significant environmental impacts by reviewing agencies and members of the public. Placement of highly technical and specialized analysis and data in the body of an EIR should be avoided through inclusion of supporting information and analyses as appendices to the main body of the EIR. Appendices to the EIR may be prepared in volumes separate from the basic EIR document, but shall be readily available for public examination and shall be submitted to all clearinghouses which assist in public review.

SCAQMD's CEQA regional significance thresholds can be found here: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf. In addition to analyzing regional air quality impacts, the SCAQMD staff recommends calculating localized air quality impacts and comparing the results to localized significance thresholds (LSTs). LSTs can be used in addition to the recommended regional significance thresholds as a second indication of air quality impacts when preparing a CEQA document. Therefore, when preparing the air quality analysis for the proposed project, it is recommended that the Lead Agency perform a localized analysis by either using the LSTs developed by the SCAQMD or performing dispersion modeling as necessary. Guidance for performing a localized air quality analysis can be found at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the proposed project and all air pollutant sources related to the proposed project. Air quality impacts from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, such as sources that generate or attract vehicular trips, should be included in the analysis.

In the event that the proposed project generates or attracts vehicular trips, especially heavy-duty diesel-fueled vehicles, it is recommended that the lead agency perform a mobile source health risk assessment. Guidance for performing a mobile source health risk assessment ("*Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*") can be found at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis. An analysis of all toxic air contaminant impacts due to the use of equipment potentially generating such air pollutants should also be included.

In addition, guidance on siting incompatible land uses (such as placing homes near freeways) can be found in the California Air Resources Board's *Air Quality and Land Use Handbook: A Community Health Perspective*, which can be found at: http://www.arb.ca.gov/ch/handbook.pdf. CARB's Land Use Handbook is a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process. Guidance[2] on strategies to reduce air pollution exposure near high-volume roadways can be found at: https://www.arb.ca.gov/ch/rd_technical_advisory_final.PDF.

Mitigation Measures

In the event that the proposed project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized during project construction and operation to minimize these impacts. Pursuant to CEQA Guidelines Section 15126.4 (a)(1)(D), any impacts resulting from mitigation measures must also be discussed. Several resources are available to assist the Lead Agency with identifying potential mitigation measures for the proposed project, including:

[2] In April 2017, ARB published a technical advisory, *Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways: Technical Advisory*, to supplement ARB's Air Quality and Land Use Handbook: A Community Health Perspective. This Technical Advisory is intended to provide information on strategies to reduce exposures to traffic emissions near high-volume roadways to assist land use planning and decision-making in order to protect public health and promote equity and environmental justice. Available at: https://www.arb.ca.gov/ch/landuse.htm.

- Chapter 11 of the SCAQMD *CEQA Air Quality Handbook*
- SCAQMD's CEQA web pages available here: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mitigation-measures-and-control-efficiencies
- SCAQMD's Rule 403 – Fugitive Dust, and the Implementation Handbook for controlling construction-related emissions and Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities
- SCAQMD's Mitigation Monitoring and Reporting Plan (MMRP) for the 2016 AQMP available here (starting on page 86): http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2017/2017-mar3-035.pdf?sfvrsn=5
- CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures* available here: http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf

Alternatives

In the event that the proposed project generates significant adverse air quality and health risks impacts, CEQA requires the consideration and discussion of alternatives to the project or its location which are capable of avoiding or substantially lessening any of the significant effects of the project. The discussion of a reasonable range of potentially feasible alternatives, including a "no project" alternative, is intended to foster informed decision-making and public participation. Pursuant to CEQA Guidelines Section 15126.6(d), the Draft EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project.

Permits

In the event that the proposed project requires a permit from SCAQMD, SCAQMD should be identified as a responsible agency for the proposed project. For more information on permits, please visit the SCAQMD webpage at: http://www.aqmd.gov/home/permits. Questions on permits can be directed to the SCAQMD's Engineering and Permitting staff at (909) 396-3385.

Data Sources

SCAQMD rules and relevant air quality reports and data are available by calling the SCAQMD's Public Information Center at (909) 396-2039. Much of the information available through the Public Information Center is also available at the SCAQMD's webpage (http://www.aqmd.gov).

SCAQMD staff is available to work with the Lead Agency to ensure that project air quality and health risk impacts are accurately evaluated and mitigated where feasible. If you have any questions regarding this letter, please contact me at lsun@aqmd.gov or call me at (909) 396-3308.

Sincerely,

Lijin Sun

Lijin Sun, J.D.
Program Supervisor, CEQA IGR
Planning, Rule Development & Area Sources

LS
ORC170505-03
Control Number

STATE OF CALIFORNIA
NATIVE AMERICAN HERITAGE COMMISSION
Environmental and Cultural Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone (916) 373-3710

Edmund G. Brown Jr., Governor

May 4, 2017

Kevin Shannon
Orange County
300 N. Flower Street
Santa Ana, CA 92703

Sent via e-mail: kevin.shannon@ocpw.ocgov.com

RE: SCH# 2017051005; Brea Canyon Road Widening Project, Orange County, California

Dear Mr. Shannon:

The Native American Heritage Commission has received the Notice of Preparation (NOP) for Draft Environmental Impact Report for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code § 21000 et seq.), specifically Public Resources Code section 21084.1, states that a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, § 15064.5 (b) (CEQA Guidelines Section 15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an environmental impact report (EIR) shall be prepared. (Pub. Resources Code § 21080 (d); Cal. Code Regs., tit. 14, § 15064 subd.(a)(1) (CEQA Guidelines § 15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources with the area of project effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a **separate category of cultural resources**, "tribal cultural resources" (Pub. Resources Code § 21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment (Pub. Resources Code § 21084.2). Please reference California Natural Resources Agency (2016) "Final Text for tribal cultural resources update to Appendix G: Environmental Checklist Form," http://resources.ca.gov/ceqa/docs/ab52/Clean-final-AB-52-App-G-text-Submitted.pdf. Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code § 21084.3 (a)). **AB 52 applies to any project for which a notice of preparation or a notice of negative declaration or mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements**. If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. § 800 et seq.) may also apply.

The NAHC recommends **lead agencies consult with all California Native American tribes** that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments. **Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws**.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a **lead agency** shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
    a. A brief description of the project.
    b. The lead agency contact information.
    c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code § 21080.3.1 (d)).
    d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code § 21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A **lead agency** shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code § 21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or environmental impact report. (Pub. Resources Code § 21080.3.1(b)).
    a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code § 65352.4 (SB 18). (Pub. Resources Code § 21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
    a. Alternatives to the project.
    b. Recommended mitigation measures.
    c. Significant effects. (Pub. Resources Code § 21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
    a. Type of environmental review necessary.
    b. Significance of the tribal cultural resources.
    c. Significance of the project's impacts on tribal cultural resources.
    d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code § 21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code sections 6254 (r) and 6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code § 21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
    a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
    b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code section 21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code § 21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:
    a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
    b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code § 21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code section 21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code section 21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code § 21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code section 21084.3 (b). (Pub. Resources Code § 21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:
    a. Avoidance and preservation of the resources in place, including, but not limited to:
        i. Planning and construction to avoid the resources and protect the cultural and natural context.
        ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
    b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
        i. Protecting the cultural character and integrity of the resource.
        ii. Protecting the traditional use of the resource.
        iii. Protecting the confidentiality of the resource.
    c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
    d. Protecting the resource. (Pub. Resource Code § 21084.3 (b)).
    e. Please note that a federally recognized California Native American tribe or a nonfederally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code § 815.3 (c)).
    f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code § 5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An environmental impact report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
    a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code sections 21080.3.1 and 21080.3.2 and concluded pursuant to Public Resources Code section 21080.3.2.
    b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
    c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code section 21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code § 21082.3 (d)).

    This process should be documented in the Cultural Resources section of your environmental document.

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires **local governments** to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code § 65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code § 65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code section 65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code sections 5097.9 and 5097.993 that are within the city's or county's jurisdiction. (Gov. Code § 65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have been already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.

b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
   a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
   b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
   a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, section 15064.5(f) (CEQA Guidelines section 15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
   b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
   c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code section 7050.5, Public Resources Code section 5097.98, and Cal. Code Regs., tit. 14, section 15064.5, subdivisions (d) and (e) (CEQA Guidelines section 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

Please contact me if you need any additional information at gayle.totton@nahc.ca.gov.

Sincerely,

Gayle Totton, M.A., PhD.
Associate Governmental Program Analyst

cc: State Clearinghouse

Puente Hills
Habitat Preservation Authority
Endowment Provided by the Puente Hills Landfill

June 22, 2017

Kevin Shannon, Contract Planner
Orange County Development Services
300 N. Flower Street
Santa Ana, CA 92702-4048
Kevin.Shannon@ocpw.ocgov.com

Re: Comments on NOP of an EIR for the Brea Canyon Road Widening Project

Dear Mr. Shannon:

The Puente Hills Habitat Preservation Authority (Habitat Authority) appreciates the opportunity to comment on the Notice of Preparation (NOP) of an Environmental Impact Report (EIR) for the Brea Canyon Road Widening Project (Project) released May 2, 2017.

The Habitat Authority is a joint powers authority established pursuant to California Government Code Section 6500 *et seq*. with a Board of Directors consisting of the City of Whittier, County of Los Angeles, Sanitation Districts of Los Angeles County, and the Hacienda Heights Improvement Association. According to its mission, the Habitat Authority is dedicated to the acquisition, restoration, and management of open space in the Puente Hills for preservation of the land in perpetuity, with the primary purpose to protect the biological diversity. Additionally, the agency endeavors to provide opportunities for outdoor education and low-impact recreation. The Habitat Authority owns and or manages over 3,800 acres which lie within the Cities of Whittier and La Habra Heights, as well as in the County unincorporated area of the Puente Hills known as Hacienda Heights.

Comments on the NOP are below:

1. The Habitat Authority supports the comments made by Shute, Mihaly & Weinberger representing Hills for Everyone in their letter dated June 2, 2017.

2. The area of the Project is a very important wildlife movement area and increased development could potentially affect long term sustainability for wildlife associated with the Puente-Chino Hills Wildlife Corridor. Although the project is not directly adjacent to land managed/owned by the Habitat Authority, we are a part of the Puente-Chino Hills Wildlife

Corridor and are dependent on a viable connection to the east. This Project could further restrict that connection.

3. We recommend for the DEIR to examine project improvements that facilitate safe wildlife passage at this critical chokepoint.

Thank you for your consideration of our comments on the NOP. Feel free to contact me or Lizette Longacre, Ecologist, at (562) 945-9003 or llongacre@habitatauthority.org for further discussion. Also, please maintain our agency on the contact list for this planning process.

Sincerely,

Bob Henderson
Chairman

cc: Board of Directors
Citizens Technical Advisory Committee
Wildlife Corridor Conservation Authority
Hills for Everyone

From: fujioka <sfujioka@sbcglobal.net>
Sent: Friday, June 02, 2017 10:47 PM
To: Shannon, Kevin
Subject: Widening of Brea Blvd

Kevin -

Here are some of my suggestions/comments about the widening project. I live off of Brea Blvd and Canyon Country and don't leave my house after 3pm as I know I will have to wait in traffic just to make a right turn onto Canyon Country.

Some suggestions:

Get rid of the 'merge' lanes. There are 2 lanes at Brea(N) and Central. Once you cross Central there are 2 1/2 lanes. What is the reason for having that 1/2 lane, which only allows people to use it as a third lane to bypass those waiting in lanes one and two, which creates gridlock. Dedicate a right hand lane going N on Brea Blvd in front of Union 76 as a right turn only with a green arrow. It is a safer option for the seniors that need to cross to go to Vons, and people ignore the current no turn on red.

Widen the island/median at the pine tree at Canyon Country/Brea Blvd. People use the right hand turn only lane then make a U turn at the pine tree which now blocks us while trying to get down the hill. Widening it would affect their turning radius and would discourage those who do it all the time. Post a no U Turn sign, but I doubt that would be effective.

Reduce the speed limit to 45. Try taking the curves at the posted 55 mph.

Limit weight for trucks. Determine the max weight on a LINN oil truck then set the standard for everyone else.
Too many cargo trucks are using Brea Blvd to go to the dump.

We need underground utilities due to the fire hazard.

Need Street lights

Do not allow parking at Tonner Canyon.

Signal at Tonner Canyon

Stanchions in the right hand turn lane into Canyon Country. Too many people go up to the light then cut over to the left.

Per an old Blackstone EIR, it was stated that if a dam or reservoir was to be built in the canyon, the water would flow South onto Brea Blvd and into Downtown Brea. If you build over the old creek beds, where is the flood excess water going to go if a dam break. There is a major Puente Hills fault line which could compromise a dam or reservoir. The city of Industry still has a possible dam or reservoir on the books but they aren't telling anyone of their plans. I am sure part of this project is to accommodate all the construction equipment when they do build. The other proposal is 2,000 homes, swatches of land has been purchased by the Chinese.

Are you considering the traffic impacts after Brea Park Central, Hines, and several projects in nearby La Habra will be completed? If L.A. isn't going to widen their share, then what's the point of widening it at all.

Whenever there is gridlock on the 57N, people will use Brea Blvd as an alternate route and it's frequently announced on the radio to do so.

Can you build 2 lanes N and 1 lane South. Seems traffic is heavy going Northbound, but not South as much.

Susan Fujoika
1017 Shadow Cyn Rd
Brea 92821
sfujioka@sbcglobal.net

From: Michelle Gilbert <mommymoch@gmail.com>
Sent: Saturday, June 03, 2017 4:27 PM
To: Shannon, Kevin
Subject: This thoroughfare is meant to be a small canyon road and should not be widened. As far as three cows, I love the rural open land and want it to stay that way!

Michelle Stephens

From: Nanci <blueyes656@hotmail.com>
Sent: Saturday, June 03, 2017 7:13 PM
To: Kevin.Shannon@ocpw.ocgov.com
Subject: Brea Canyon widening

Dear Kevin,

We live in the Mariposa Elementary School tract. We're opposed to the widening project for many reasons;

There will be more traffic
It will be taking away the small town community feel of Brea
Four lanes = more traffic and double the accidents
Tonner Canyon exit should be closed
Brea has become a "drive-through" city with more traffic cutting through than actually live here
The widening would benefit LA County more than it will OC because it's a short cut
The 57 was built for a reason, for trucks and traffic and commuting - not Brea Canyon
It will add to the traffic that will increase in Brea from the Hines Project
The noise from the Brea Canyon traffic will be excessive
There should not be a truck sleep spot on Tonner Canyon, it breeds crime
More lanes mean more traffic, more speeding, more running the "new" red light and more accidents

Who benefits from this project? Not Brea! Not Orange County

Sincerely,
Jeff and Nanci Hill

From: Anthony Santos <tazbluestinky@yahoo.com>
Sent: Friday, June 02, 2017 10:46 AM
To: Kevin.Shannon@ocpw.ocgov.com
Subject: Sound wall

Regarding the widening of brea Blvd through Tonner canyon I can only imagine the increase in traffic on State College , between Brea Blvd to Lambert Ave. I'm requesting or mitigate for a sound wall for this thoroughfare. Thank you, Anthony Santos

Sent from my iPhone

From: Rick Clark <drdeadline@earthlink.net>
Sent: Friday, June 02, 2017 11:40 AM
To: Shannon, Kevin
Cc: Pineda, Hugo
Subject: Public Scoping Meeting Comments - Brea Canyon Widening Project

Kevin…

I am unaffiliated with any organization but do independently publish the blog www.breamatters.org — my address is 855 N. Brea Blvd., #133, Brea 92821. I can be reached also at (714) 501-8080. I attended the scoping meeting at Vintage Canyon Senior Apartments last Friday.

Comment/Questions

Who or what agency initiated the consideration of this project, what is it's genesis?

What are the goals/objectives of this project, what benefits will residents receive?

How do you plan to upgrade this section of Brea Boulevard/Canyon from a "F" to an "A" - is that a realistic expectation?

Please include in your review of cumulative (traffic) impacts the effects of these developments: Central Park Brea, La Floresta and Hines Brea Place plus the proposed redesign and renovation of the 57/Lambert Interchange?

Thanks.

Rick Clark

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
South Coast Region
3883 Ruffin Road
San Diego, CA 92123
(858) 467-4201
www.wildlife.ca.gov

EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director

June 2, 2017

Mr. Kevin Shannon
Orange County Development Services/Planning
300 N. Flower Street
Santa Ana, CA 92703
kevin.shannon@ocpw.ocgov.com

Subject: Comments on the Notice of Preparation of a Draft Environmental Impact Report for the Brea Canyon Road Widening Project (SCH# 2017051005)

Dear Mr. Shannon:

The California Department of Fish and Wildlife (Department) has reviewed the above-referenced Notice of Preparation (NOP) for the Brea Canyon Road Widening Draft Environmental Impact Report (DEIR). The following statements and comments have been prepared pursuant to the Department's authority as Trustee Agency with jurisdiction over natural resources affected by the project (California Environmental Quality Act [CEQA] Guidelines § 15386) and pursuant to our authority as a Responsible Agency under CEQA Guidelines section 15381 over those aspects of the proposed project that come under the purview of the California Endangered Species Act (Fish and Game Code § 2050 *et seq.*) and Fish and Game Code section 1600 *et seq*. The Department also administers the Natural Community Conservation Planning (NCCP) program.

The majority of the 1.75-mile project segment of Brea Canyon Road is located within unincorporated Orange County (County), between Canyondale Drive to the south and the Orange County/Los Angeles County boundary line to north, running roughly parallel to Brea Canyon Creek. The project will widen Brea Canyon Road from two lanes to four lanes; cut the surrounding slope; install a 50-foot-high retention wall; replace three bridges; modify 13 culvert crossings; and relocate/realign utility lines, poles, and pipes.

The Department offers the following comments and recommendations to assist the County in avoiding or minimizing potential project impacts on biological resources.

1. The Department has responsibility for wetland and riparian habitats. It is the policy of the Department to strongly discourage development in wetlands or conversion of wetlands to uplands. We oppose any development or conversion which would result in a reduction of wetland acreage or wetland habitat values, unless, at a minimum, project mitigation assures there will be "no net loss" of either wetland habitat values or acreage. Development and conversion include but are not limited to conversion to subsurface drains, placement of fill or building of structures within the wetland, and channelization or removal of materials from the streambed. All wetlands and watercourses, whether ephemeral, intermittent, or perennial, should be retained and provided with substantial setbacks which preserve the riparian and aquatic values and maintain their value to on-site and off-site wildlife populations. Mitigation measures to compensate for impacts to mature riparian corridors must be included in the DEIR and must compensate for the loss of function and value of a wildlife corridor.

a. The project area supports aquatic, riparian, and wetland habitats; therefore, a jurisdictional delineation of the creeks and their associated riparian habitats should be included in the DEIR. The delineation should be conducted pursuant to the U. S. Fish and Wildlife Service wetland definition adopted by the Department.[1] Please note that some wetland and riparian habitats subject to the Department's authority may extend beyond the jurisdictional limits of the U.S. Army Corps of Engineers.

b. The Department also has regulatory authority over activities in streams and/or lakes that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of any river, stream, or lake or use material from a river, stream, or lake. For any such activities, the project applicant (or "entity") must provide written notification to the Department pursuant to section 1600 et seq. of the Fish and Game Code. Based on this notification and other information, the Department determines whether a Lake and Streambed Alteration Agreement (LSA) with the applicant is required prior to conducting the proposed activities. The Department's issuance of a LSA for a project that is subject to CEQA will require CEQA compliance actions by the Department as a Responsible Agency. The Department as a Responsible Agency under CEQA may consider the local jurisdiction's (lead agency) Negative Declaration or Environmental Impact Report for the project. To minimize additional requirements by the Department pursuant to section 1600 *et seq.* and/or under CEQA, the document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for issuance of the LSA.[2]

2. The Department considers adverse impacts to a species protected by the California Endangered Species Act (CESA), for the purposes of CEQA, to be significant without mitigation. As to CESA, take of any endangered, threatened, or candidate species that results from the project is prohibited, except as authorized by state law (Fish and Game Code, §§ 2080, 2085). Consequently, if the Project, Project construction, or any Project-related activity during the life of the Project will result in take of a species designated as endangered or threatened, or a candidate for listing under CESA, the Department recommends that the project proponent seek appropriate take authorization under CESA prior to implementing the project. Appropriate authorization from the Department may include an incidental take permit (ITP) or a consistency determination in certain circumstances, among other options (Fish and Game Code §§ 2080.1, 2081, subds. (b),(c)). Early consultation is encouraged, as significant modification to a project and mitigation measures may be required in order to obtain a CESA Permit. Revisions to the Fish and Game Code, effective January 1998, may require that the Department issue a separate CEQA document for the issuance of an ITP unless the project CEQA document addresses all project impacts to CESA-listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of an ITP. For these reasons, biological mitigation

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[1] Cowardin, Lewis M., et al. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Department of the Interior, Fish and Wildlife Service.

[2] A notification package for a LSA may be obtained by accessing the Department's web site at www.wildlife.ca.gov/habcon/1600.

monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for a CESA ITP.

3. To enable the Department to adequately review and comment on the proposed project from the standpoint of the protection of plants, fish, and wildlife, we recommend the following information be included in the DEIR.

   a) The document should contain a complete discussion of the purpose and need for, and description of, the proposed project, including all staging areas and access routes to the construction and staging areas.

   b) A range of feasible alternatives should be included to ensure that alternatives to the proposed project are fully considered and evaluated; the alternatives should avoid or otherwise minimize impacts to sensitive biological resources. Specific alternative locations should be evaluated in areas with lower resource sensitivity where appropriate.

Biological Resources within the Project's Area of Potential Effect

4. The document should provide a complete assessment of the flora and fauna within and adjacent to the project area, with particular emphasis upon identifying endangered, threatened, sensitive, and locally unique species and sensitive habitats. This should include a complete floral and faunal species compendium of the entire project site, undertaken at the appropriate time of year. The DEIR should include the following information.

   a. CEQA Guidelines, section 15125(c), specifies that knowledge on the regional setting is critical to an assessment of environmental impacts and that special emphasis should be placed on resources that are rare or unique to the region.

   b. A thorough, recent floristic-based assessment of special status plants and natural communities, following the Department's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (see http://www.dfg.ca.gov/habcon/plant/). The Department recommends that floristic, alliance-based and/or association-based mapping and vegetation impact assessments be conducted at the Project site and neighboring vicinity. The Manual of California Vegetation, second edition, should also be used to inform this mapping and assessment (Sawyer et al. 2008[3]). Adjoining habitat areas should be included in this assessment where site activities could lead to direct or indirect impacts offsite. Habitat mapping at the alliance level will help establish baseline vegetation conditions.

   c. A current inventory of the biological resources associated with each habitat type on site and within the area of potential effect. The Department's California Natural Diversity Data Base in Sacramento should be contacted at www.wildlife.ca.gov/biogeodata/ to obtain current information on any previously reported sensitive species and habitat, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code.

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[3] Sawyer, J. O., T. Keeler-Wolf and J.M. Evens. 2009. A Manual of California Vegetation, Second Edition. California Native Plant Society Press, Sacramento.

d. An inventory of rare, threatened, endangered and other sensitive species on site and within the area of potential effect. Species to be addressed should include all those which meet the CEQA definition (see CEQA Guidelines, § 15380). This should include sensitive fish, wildlife, reptile, and amphibian species. Seasonal variations in use of the project area should also be addressed. Focused species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, are required. Acceptable species-specific survey procedures should be developed in consultation with the Department and the U.S. Fish and Wildlife Service.

Analyses of the Potential Project-Related Impacts on the Biological Resources

5. To provide a thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts, the following should be addressed in the DEIR.

   a) A discussion of potential adverse impacts from lighting, noise, human activity, exotic species, and drainage should also be included. The latter subject should address: project-related changes on drainage patterns on and downstream of the project site; the volume, velocity, and frequency of existing and post-project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and post-project fate of runoff from the project site. The discussions should also address the proximity of the extraction activities to the water table, whether dewatering would be necessary, and the potential resulting impacts on the habitat, if any, supported by the groundwater. Mitigation measures proposed to alleviate such impacts should be included.

   b) Discussions regarding indirect project impacts on biological resources, including resources in nearby public lands, open space, adjacent natural habitats, riparian ecosystems, and any designated and/or proposed or existing reserve lands (e.g., preserve lands associated with a NCCP). Impacts on, and maintenance of, wildlife corridor/movement areas, including access to undisturbed habitats in adjacent areas, should be fully evaluated in the DEIR.

   c) The zoning of areas for development projects or other uses that are nearby or adjacent to natural areas may inadvertently contribute to wildlife-human interactions. A discussion of possible conflicts and mitigation measures to reduce these conflicts should be included in the environmental document.

   d) A cumulative effects analysis should be developed as described under CEQA Guidelines, section 15130. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant communities and wildlife habitats.

Mitigation for the Project-related Biological Impacts

6. The DEIR should include measures to fully avoid and otherwise protect Rare Natural Communities from project-related impacts. The Department considers these communities as threatened habitats having both regional and local significance.

7. The DEIR should include mitigation measures for adverse project-related impacts to sensitive plants, animals, and habitats. Mitigation measures should emphasize avoidance and reduction of project impacts. For unavoidable impacts, on-site habitat restoration or enhancement should be discussed in detail. If on-site mitigation is not feasible or would not be biologically viable and

therefore not adequately mitigate the loss of biological functions and values, off-site mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed.

8. For proposed preservation and/or restoration, the DEIR should include measures to perpetually protect the targeted habitat values from direct and indirect negative impacts. The objective should be to offset the project-induced qualitative and quantitative losses of wildlife habitat values. Issues that should be addressed include restrictions on access, proposed land dedications, monitoring and management programs, control of illegal dumping, water pollution, increased human intrusion, etc.

9. The Department recommends that measures be taken to avoid project impacts to nesting birds. Migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (Title 50, § 10.13, Code of Federal Regulations). Sections 3503.5 and 3513 of the California Fish and Game Code prohibit take of all raptors and other migratory nongame birds and section 3503 prohibits take of the nests and eggs of all birds. Proposed project activities (including, but not limited to, staging and disturbances to native and nonnative vegetation, structures, and substrates) should occur outside of the avian breeding season which generally runs from February 1- September 1 (as early as January 1 for some raptors) to avoid take of birds or their eggs. If avoidance of the avian breeding season is not feasible, the Department recommends surveys by a qualified biologist with experience in conducting breeding bird surveys to detect protected native birds occurring in suitable nesting habitat that is to be disturbed and (as access to adjacent areas allows) any other such habitat within 300 feet of the disturbance area (within 500 feet for raptors). Project personnel, including all contractors working on site, should be instructed on the sensitivity of the area. Reductions in the nest buffer distance may be appropriate depending on the avian species involved, ambient levels of human activity, screening vegetation, or possibly other factors.

10. The Department generally does not support the use of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species. Studies have shown that these efforts are experimental in nature and largely unsuccessful.

11. Plans for restoration and revegetation should be prepared by persons with expertise in southern California ecosystems and native plant revegetation techniques. Each plan should include, at a minimum: (a) the location of the mitigation site; (b) the plant species to be used, container sizes, and seeding rates; (c) a schematic depicting the mitigation area; (d) planting schedule; (e) a description of the irrigation methodology; (f) measures to control exotic vegetation on site; (g) specific success criteria; (h) a detailed monitoring program; (i) contingency measures should the success criteria not be met; and (j) identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity.

12. The Polyphagous and Kuroshio Shot Hole Borers (SHBs) are invasive ambrosia beetles that introduce fungi and other pathogens into host trees. The adult female (1.8-2.5 mm long) tunnels galleries into the cambium of a wide variety of host trees, where it lays its eggs and propagates the *Fusarium* fungi species for the express purpose of feeding its young. These fungi cause *Fusarium* dieback disease, which interrupts the transport of water and nutrients in at least 43 reproductive host tree species, with impacts to other host tree species as well. With documented occurrences throughout Southern California, the spread of SHBs could have significant impacts in local ecosystems. Therefore, with regard to SHBs, we recommend the DEIR include the following:

a. a thorough discussion of the direct, indirect, and cumulative impacts that could occur from the potential spread of SHBs as a result of proposed activities in the DEIR;

b. an analysis of the likelihood of the spread of SHBs as a result of the invasive species' proximity to above referenced activities;

c. figures that depict potentially sensitive or susceptible vegetation communities within the project area, the known occurrences of SHB within the project area (if any), and SHB's proximity to above referenced activities; and

d. a mitigation measure or measure(s) within the final MND that describe Best Management Practices (BMPs) that bring impacts of the project on the spread of SHB below a level of significance. Examples of such BMPs include:

i. education of on-site workers regarding SHB and its spread;
ii. reporting sign of SHB infestation, including sugary exudate ("weeping") on trunks or branches and SHB entry/exit-holes (about the size of the tip of a ballpoint pen), to the Department and UCR's Eskalen Lab;
iii. equipment disinfection;
iv. pruning infected limbs in infested areas where project activities may occur;
v. avoidance and minimization of transport of potential host tree materials;
vi. chipping potential host materials to less than 1 inch and solarization, prior to delivering to a landfill;
vii. chipping potential host materials to less than 1 inch, and solarization, prior to composting on-site;
viii. solarization of cut logs; and/or
ix. burning of potential host tree materials.

Please refer to UCR's Eskalen lab website for more information regarding SHBs: http://eskalenlab.ucr.edu/pshb.html.

We appreciate the opportunity to comment on the referenced NOP. Questions regarding this letter and further coordination on these issues should be directed to Jennifer Turner at (858) 467-2717 or via email at jennifer.turner@wildlife.ca.gov.

Sincerely,

Gail K. Sevrens
Environmental Program Manager

ec: Doreen Stadtlander (U.S. Fish and Wildlife Service)
Scott Morgan (State Clearinghouse)

State of California • Natural Resources Agency
Edmund G. Brown Jr., *Governor*

DEPARTMENT OF PARKS AND RECREATION
Lisa Ann L. Mangat, *Director*
Inland Empire District
17801 Lake Perris Drive
Perris, CA 92571

June 2, 2017

Kevin Shannon
OC Development Services/Planning
300 N. Flower Street
Santa Ana, CA 92703

Subject: Notice of Preparation of a Draft Environmental Impact Report (EIR No. 628) for the Brea Canyon Road Widening Project

Dear Mr. Shannon:

The Inland Empire District of the Department of Parks and Recreation (State Parks) appreciates the opportunity to comment on the aforementioned project. State Parks is a trustee agency as defined by the California Environmental Quality Act (CEQA). State Parks' mission in part is to provide for the health, inspiration, and education of the people of California by preserving the state's extraordinary biodiversity and creating opportunities for high quality outdoor recreation. As the office responsible for the stewardship of Chino Hills State Park (Chino Hills SP), we have an interest and concern about contemplated alterations of land use within and adjacent to the park. The long-term health of Chino Hills SP is dependent on the health of the regional ecosystems because the biotic boundaries of the park extend beyond its jurisdictional boundaries.

Although the project is more than two miles from Chino Hills SP, it may have an impact on the park's resources. Specifically, the Puente-Chino Hills comprise a 31-mile wildlife movement corridor that stretch from I-605/SR-60 Freeway Interchange on the west to the SR-91/SR-71 Freeway Interchange on the east. Wildlife move from east to west and back, and move farther into other parts including the Santa Ana Mountains and Prado Basin. The proposed project has the potential to increase vehicle-wildlife collision and therefore, significantly impact wildlife movement. We request that the Draft EIR include specific studies on the potentially significant impact on wildlife movement of the road widening project. The studies should include measures to reduce vehicle-wildlife collisions, such as wildlife fencing designed to funnel wildlife to safe passage ways.

Thank you again for the opportunity to comment and for your serious consideration. For further discussion, please contact me or Enrique Arroyo at (951) 453-6848.

Sincerely,

Ryann Gill – Chino Sector Superintendent on behalf of
Kelly Elliott
Inland Empire District Superintendent
California State Parks

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June 2, 2017

Kevin Shannon, Contract Planner
Orange County Development Services
300 N. Flower Street
Santa Ana, CA 92702-4048
Kevin.Shannon@ocpw.ocgov.com

Re: Notice of Preparation of an Environmental Impact Report for the Brea Canyon Road Widening Project

Dear Mr. Shannon:

We represent Hills For Everyone in connection with the Brea Canyon Road Widening Project ("Project"). Like all concerned members of the public, Hills For Everyone expects to rely heavily on the environmental document required by the California Environmental Quality Act ("CEQA") for an honest and thorough assessment of the environmental impacts of the proposed Project. To this end, we submit the following comments on the biological and hydrological resources sections of the Notice of Preparation and Initial Study (collectively referred to as "NOP") prepared for the proposed Project.

Hills For Everyone was formed over 30 years ago with the specific mission to protect the unique, rare, and disappearing landscape in the Puente-Chino Hills. These hills lie at the juncture of Southern California's four most populous counties: Los Angeles, Orange, Riverside, and San Bernardino. The group's first goal was the creation of the Chino Hills State Park. By designing the Park along ridgeline boundaries, Hills For Everyone originated a design strategy that protected the watershed and the viewshed. From its earliest history, Hills For Everyone has opposed projects that damaged the evolving Park and supported decisions, including the modification of potentially-harmful projects, that protected it.

Based on the limited information provided in the NOP, the proposed Project would appear to be one of these damaging projects, as its construction and operation would adversely impact wildlife and watershed resources.

I. The NOP Lacks the Necessary Information Regarding the Project and its Probable Environmental Impacts.

The purpose of an NOP is to "solicit guidance from members of the public agencies as to the scope and content of the environmental information to be included in the EIR." CEQA Guidelines § 15375; *see also* CEQA Guidelines § 15082. In order to effectively solicit such guidance, the NOP must provide adequate and reliable information regarding the nature of the Project and its probable environmental impacts. Unfortunately, the County's NOP fails to meet the minimum standard for adequacy in this regard.

As an initial matter, the NOP fails to describe the Project's environmental setting, and, in particular, its biological and hydrological setting. The environmental setting provides "the baseline physical conditions by which a lead agency determines whether an impact is significant." CEQA Guidelines § 15125(a). "Without a determination and description of the existing physical conditions on the property at the start of the environmental review process, the EIR cannot provide a meaningful assessment of the environmental impacts of the proposed project." *Save Our Peninsula Committee v. Monterey Cnty. Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 119. Although the Project's construction and operation would likely result in severe impacts on biological resources, the NOP provides no information about the sensitive natural communities or wildlife that occur in the Project vicinity. Nor does the NOP provide any information about Brea Creek despite the fact that the Project proposes extensive construction in and around the creek.

Given Brea Canyon Road's proximity to steep hillsides and Brea Creek, widening of the roadway would be highly impactive. According to the NOP, the roadway would need to be realigned to eliminate or reduce five existing curves. Three bridges that cross Brea Creek would need to be replaced. These bridge replacement projects would be built in phases such that interim bridges would be constructed adjacent to existing bridges, then traffic would be diverted to the new bridges while the existing bridges are demolished and replaced. The Project would require 13 culvert crossings for drainage or oil lines or both. The roadway slope would be cut a minimum of 50 feet or more requiring the construction of 50-foot (or higher) retaining wall.

Despite this extensive and prolonged construction project, the NOP is virtually silent as to how each of these activities would impact biological resources. The document does nothing more than include boilerplate language (the project "has the potential to have a substantial adverse effect on candidate, sensitive, or special status species and federally protected wetlands"). In order to serve as an informational document, the NOP must offer

at least some detail about these important biological resources and the expected nature of the Project's impact on these resources. If the EIR suffers from the same lack of detail and focus, it will be legally inadequate under CEQA**.**

Moreover, although a critical wildlife corridor occurs immediately adjacent to Brea Canyon Road, the NOP fails to specifically acknowledge this corridor, describe how wildlife currently use the corridor, or make any attempt to explain how the Project would effect the corridor. The DEIR's analysis of this issue will be particularly important because wildlife movement between the Puente Hills and the Chino Hills is critical for ensuring natural ecological and evolutionary processes on a landscape scale over the long term. Indeed, the linkage at Tonner Canyon clearly represents *the last viable opportunity* to maintain and enhance a critical ecological linkage between the Puente and the Chino Hills.

Nor does the NOP describe the existing ecological values of Brea Creek or attempt to estimate the extent of riparian and wetland loss that would occur from construction of the Project. What little information that is provided in the NOP is particularly alarming as the document acknowledges that the bridge replacement projects will require dewatering of the creek and that the Project's construction is estimated to last more than three years. The DEIR must evaluate the effect on riparian habitat and wildlife from this sustained loss of water.

The NOP also fails to provide even the most superficial analysis of the Project's operational impacts. For example, the NOP does not acknowledge the Project's potential to cause increased traffic volumes on the roadway. The Project proposes to widen Brea Canyon Road from two to four lanes, effectively doubling the roadway's capacity. Studies show that increases in roadway capacity have the potential to cause a substantial increase in traffic volumes, especially in those instances where the increase in capacity is intended to alleviate a traffic chokepoint. The Project would also eliminate several curves in the existing roadway with the specific intent of increasing vehicular speeds. Increased traffic volumes and increased vehicular speeds will adversely impact wildlife, e.g., increased mortality from vehicular collisions, yet the NOP fails to acknowledge these effects. It is unclear whether the Project includes new lighting along the roadway. If so, the DEIR must analyze the associated impacts as artificial lighting may have negative and even deadly effects on wildlife.

A full analysis of the Project-specific and cumulative effects on biological resources impacts will be essential to development of alternatives and measures to eliminate or substantially reduce the Project's significant impacts. This detailed analysis

must be prepared by a qualified, independent biologist with expertise in upland and riparian habitats. The biological resources study must be based on surveys and detailed field studies that are completed at appropriate times of the year for each species potentially in the area. A search of the California Natural Diversity Database ("CNDDB") maintained by the California Department of Fish & Wildlife is a good starting point, but it is not sufficient to provide the level of detail necessary for the EIR.

The DEIR must also determine whether construction and operation of the Project would result in the violation of any water quality standards, result in substantial new amounts of polluted runoff, deplete groundwater supplies or interfere with groundwater recharge, or alter the existing drainage patterns in the area. This analysis is particularly important in light of the amount of construction in and around Brea Creek and the amount of wildlife in the area that depend on surface water supplies.

II. Conclusion

We appreciate the opportunity to provide these comments. Given that the NOP does not provide adequate information regarding the Project's probable environmental impacts, we respectfully request that the County revise and recirculate its NOP. Alternatively, if the County intends to proceed with the preparation of the DEIR without republishing the NOP, please keep this office informed of all notices, hearings, staff reports, briefings, meetings, and other events related to the proposed project. In addition, please notify us of the release of the DEIR.

Very truly yours,

SHUTE, MIHALY & WEINBERGER LLP

Laurel L. Impett, AICP, Urban Planner

cc: Claire Schlotterbeck, Hills For Everyone

From: bethnaples@aol.com [mailto:bethnaples@aol.com]
Sent: Thursday, June 01, 2017 11:40 AM
To: Shannon, Kevin
Subject: Brea Canyon Road Widening Project

Dear Mr. Shannon,

I attended the meeting at Mariposa School to learn more about the proposed Brea Canyon Widening Project and would like to share the following comments because I do not support the Brea Canyon Widening Project and know there are many better options to deal with the issues regarding this area:

1. Why would OC want to pay to widen this street when the majority of the peak traffic times are for people who are entering the canyon in the morning and leaving the canyon in the evening. Those who are typically in the canyon during those times are not Brea nor OC residents so why would OC have interest in spending this money when these commuters have access to the freeway which parallels this route and was widened to account for this traffic.

2. Additionally, if LA County is not part of this widening, then it only moves where the bottle necks will occur. Plus, it has the potential to reroute traffic from the freeway to this canyon which doesn't make sense since the freeway was widened in this area to increase the traffic flow through this part of OC.

3. If the canyon is unsafe, OC should consider reducing the speed limit substantially to accommodate for the curves and the poor lighting which would reduce the number of accidents through this area. OC should consider new and better lighting and barriers through this area instead of widening this road. In addition traffic lights should be added to slow and better flow the traffic.

4. This area should be better patrolled and people ticketed for exceeding the current speed limit and for running the red light and not following the right turn arrow at Canyon Country Road. By doing this, it would change motorists behavior and increase the safety through this area.

5. Widening this road would significantly increase the traffic noise which is unacceptable.

Please consider my comments which would make this area safer without the need to widen the road and increase the noise and number of vehicles though this wonderful canyon area where I bought my home in Good Ole Brea.

Sincerely,
Beth Naples
714-529-0253
1153 Grand Canyon
Brea, CA 92821

From: John Bickel [mailto:john.bickel@sbcglobal.net]
Sent: Friday, June 02, 2017 8:33 AM
To: Shannon, Kevin
Subject: Brea Canyon

Mr. Shannon. I was out of town and missed the meeting concerning the Brea Canyon widening held at MariposaSchool in Brea. I have a couple of thoughts.

What will be the extent of the earthwork during the project. You will be working in the area of 100 years of oil production and canyon rainwater runoff in this area. Extensive removals for re-compaction may reveal contaminated soils with metals such as PCBs and arsenic.

The use of Dig-A-Lert will not totally identify buried lines belonging to the oil companies. Be sure to directly contact their field pipeline folks or local real estate division for historical and current drawings.

Will there be a Phase I and II environmental study?

Ask for drawings or records that may show where historically the oil companies dumped their waste in the area. During the Birch Hills Golf Course redesign, I found PCBs all over the back nine of the golf course, wondering where all of this came from. After extensive research, I found a 1950's Union Oil drawing identifying two areas of "Waste Disposal Area" on the property. If this would have been known prior to grading and building the Union Plaza and reconfiguring the golf course then, perhaps the PCBs would have been located and not spread all over the back nine? Or, was the contamination from importing soil?

Which brings up the point of soil testing before importing anything.

What will happen to the historic bridge at the entrance to the canyon?

What will happen to the Portola Monument at the entrance to the canyon? This has definite historical value as recorded by the Brea Historical Society.

What will be the design of the flood control system that will probably be buried beneath the highway? Will that be designed to clean the runoff prior to entering the flood control channel?

There is potential for spills in the area that could impact the runoff.

Thanks,

John Bickel
Brea

DEPARTMENT OF TRANSPORTATION
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Serious Drought.
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June 1, 2017

Mr. Hugo Pineda, P.E.
Orange County Public Works Department
300 N. Flower Street, 1st Floor
Santa Ana, CA 92703-4098

File: IGR/CEQA
SCH#: 2017051005
12-ORA-2017-00564
SR-57

Dear Mr. Pineda,

Thank you for including the California Department of Transportation (Caltrans) in the review of the draft Initial Study (IS) for the Brea Canyon Widening Project (SCH# 2017051005). The mission of Caltrans is to provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability. The Local Development-Intergovernmental Review (LD-IGR) Program reviews land use projects and plans to ensure consistency with our mission and state planning priorities of infill, conservation, and efficient development.

The project proposes widening Brea Boulevard/Brea Canyon Road from two to four lanes, additional improvements consistent with the Orange County Master Plan of Arterial Highways (MPAH). The project area runs approximately 1.75 miles from Canyondale Drive in the City of Brea, through partially unincorporated Orange County, to the Orange County/Los Angeles Border. Caltrans is a commenting agency at this time on this project and has the following comments:

Traffic Operations:

1. Within this segment, Brea Canyon Rd intersects the SB SR-57 on ramp at an uncontrolled intersection. Traffic Operations requests that this intersection be analyzed using the methodologies of the Highway Capacity Manual (2010). If there is need for controlling the intersection, refer to the attached Caltrans' Policy Directive on Intersection Control Evaluation (ICE).

2. A Traffic Management Plan (TMP) would need to be developed to address impacts on SR-57 facilities during construction.

Permits:

3. Any project work proposed in the vicinity of the State 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 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.

Sincerely,

MAUREEN EL HARAKE
Branch Chief, Regional-IGR-Transit Planning
District 12

Enclosures

Attachments: ICE_12-02.pdf

c: OPR State Clearinghouse

bcc: Lee Haber, Branch Chief, Traffic Operations
Chuck Baker, Branch Chief, Environmental
Yatman Qwan, Branch Chief, Systems Planning

STATE OF CALIFORNIA• DEPARTMENT OF TRANSPORTATION

POLICY DIRECTIVE

TR-0011 (REV 9/2006)

TRAFFIC OPERATIONS POLICY DIRECTIVE	NUMBER: **13-02**	PAGE: **1 of 10**
DENNIS T. AGAR, Chief Division of Traffic Operations	DATE ISSUED: **August 23, 2013**	EFFECTIVE DATE: **August 30, 2013**
SUBJECT: **Intersection Control Evaluation (ICE)**	DISTRIBUTION ☒ All District Directors ☒ All Deputy District Directors - Traffic Operations ☒ All Deputy District Directors - Maintenance ☒ All Deputy District Directors - Construction ☒ All Deputy District Directors - Design ☒ All Deputy District Directors - Transportation Planning ☐ Chief, Division of Engineering Services ☒ Chief Counsel, Legal Division ☒ Publications (California MUTCD Website) www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/ca_mutcd.htm ☐ Headquarters Division Chiefs for:	
DOES THIS DIRECTIVE AFFECT OR SUPERSEDE ANOTHER DOCUMENT? ☒YES ☐NO	IF YES, DESCRIBE: **Design Information Bulletin 80-01 and California MUTCD**	
WILL THIS DIRECTIVE BE INCORPORATED IN THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES ☒YES ☐NO	IF YES, DESCRIBE: **After formal evaluation (within 3 years)**	

DIRECTIVE

This directive updates the evaluation procedures used to:

- Justify the installation of traffic signal systems, yield-control (roundabouts), and multi-way stop control at state highway intersections and interchanges.
- Identify effective intersection traffic control strategies and alternative treatments, strategies and configurations for particular conditions.
- Estimate the relative effectiveness, impacts and utility of specific control strategies.

The engineer must evaluate impacts to all intersection traffic. In order to identify the most effective and comprehensive access alternatives, the engineer must consider various strategies, treatments, configurations and countermeasures. The fundamental objective is to balance the needs of all modes and users with system performance goals and the highway facility context.

The need for, use of, and form of intersection traffic control shall be, as follows:

- Determined in consideration of the technical findings and recommendations generated by the evaluation procedures and engineering studies required or referenced by this directive.
- Determined in consideration of project development process input, and the technical advice provided through consultations with the District ICE Coordinator, District functional unit personnel, and ICE Technical Assistance Program (TAP) personnel. The RESOURCES section and Appendix B provide information on the roles of the District ICE Coordinator and ICE TAP.
- Approved or concurred in writing by the District Traffic Operations functional manager responsible for operating and managing the performance of specific State highway segments, corridors and intersections.

Appendix A illustrates the intersection traffic control evaluation (ICE) framework, process steps, activities and outcomes that will guide and support performance-based engineering and investment decisions. Appendix A also outlines the general sequence of evaluation activities and how they are integral to the broader transportation planning, project identification and project development processes.

IMPLEMENTATION

This directive shall be applied to access-related investment proposals initiated after the effective date, unless the sponsor of an ongoing project elects to apply some or all of the updated evaluation process to their project.

The procedural and engineering study requirements, recommendations, guidance and references specified in this directive apply to all processes that identify or propose highway infrastructure investment proposals. These include, but are not limited to:

- Local community planning.
- Local development review.
- State highway corridor planning.
- The traffic investigation function.
- Project initiation processes.

This directive applies to:

- Encroachment permit proposals to construct new, or expand existing intersections.
- Project identification and initiation efforts proposing:
    a. New highway facilities.
    b. New intersections and interchanges on existing highways.
    c. Existing intersection and interchange capacity expansion.
    d. New or expanded access to mitigate traffic impacts generated by development.
- Traffic signal, multi-way stop control, and yield-controlled roundabout proposals.
- Expansion or modification proposals for existing signalized intersections, roundabouts and traffic circles.

ADA Notice For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 653-3657 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS89, Sacramento, CA 95814.

KEY PROCESS CHANGES AND REQUIREMENTS

1. Proposals to employ full control at state highway intersections (i.e. to control all approaching traffic via use of signal, stop or yield control) must consider all three intersection control strategies and the supporting design configurations during the ICE screening process.
2. Engineering recommendations must consider the safety performance characteristics of intersection control strategies, and safety performance analysis findings for specific proposals.
3. The districts are authorized to implement yield-controlled roundabouts and single point interchanges as specified herein.

EVALUATION AND STUDY PROCEDURES

As illustrated in Appendix A, a two-step evaluation process supports the timely and efficient selection of intersection traffic control strategies and access configurations for particular intersections.

STEP ONE: Access Strategy and Configuration Assessment/Screening

The objective of Step One evaluation activities is to identify access solution concepts meriting further consideration. This approach focuses the expenditure of engineering resources on access strategies and configurations that should meet the transportation purpose and need consistent with system performance goals, the project context (including the needs and values of local communities), and financial constraints.

The assessment effort should produce a concept-level understanding of the highway infrastructure work needed for each intersection control strategy meeting the aforementioned screening objectives. This normally requires a planning-level capacity analysis to identify the preliminary size or footprint of the intersection. The footprint is usually based on the number and length of the approach lanes for a specific control strategy during the project design period or service life. The preliminary footprint evaluation determines if specific strategies are context-appropriate and practical to implement.

The assessment effort should rely upon the following:

- Consultation with project sponsor to understand the purpose and need for an access-related investment proposal.
- List of Access Strategies and Configurations presented in the ICE Process Informational Guide.
- General or planning-level traffic analysis.
- Application of the screening criteria presented in the ICE Process Informational Guide.
- Technical knowledge of intersection traffic control performance characteristics and applications.
- Engineering judgment based on knowledge and experience gained from the operation of state highway intersections.
- Technical consultations with and recommended by the District ICE Coordinator.

The technical findings and recommendations generated by assessment/screening activities shall be documented as outlined in the ICE Process Informational Guide. Recommendations should also be incorporated into the appropriate engineering documents (e.g., plans and/or reports).

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STEP TWO: Engineering Analysis

The evaluation of access alternatives continues during the appropriate project development process phase (e.g. Project Approval and Environmental Document).

Step Two evaluation activities include, but are not limited to:

- Intersection traffic control warrant studies (if required pursuant to the CA MUTCD, and not performed during Step One).
- Project alternative capacity, operational and safety analysis.
- Design performance checks focused on accommodating the design vehicle, pedestrians and bicyclists.
- Economic analysis based on project cost estimates, including life-cycle cost considerations.
- Consultations with and recommended by the District ICE Coordinator, functional unit personnel, and ICE Technical Assistance Program (TAP) personnel.

The result of Step Two activities is an engineering estimate and comparison of the system performance impacts, benefits, and costs expected over the design or service life of each control strategy and the No Build or Control scenario. Traffic analysis will produce performance impacts and benefits estimates related to:

- Intersection control delay and/or highway segment travel time.
- Collision frequency and severity.

Prior to completing Step 2, the District ICE Coordinator and/or designated functional unit and ICE TAP personnel shall be consulted to evaluate:

- Complex, non-standard, or non-conforming features to identify potentially significant performance impacts that cannot be avoided or mitigated.
- Preliminary plan alternatives to ensure that critical design features and traffic elements are included, and that performance analysis findings reflect omitted or non-conforming features.
- Step Two recommendations and findings to ensure that decision-makers are advised of potential risks, performance deficiencies, mitigation strategies, and improvement concepts needed beyond the service life of specific alternatives.

The technical findings and recommendations generated by Step Two evaluation activities shall be documented as recommended in the ICE Process Information Guide. Recommendations should be incorporated into the appropriate engineering documents (e.g. reports and preliminary plan drawings).

Preliminary and/or intermediate consultations are encouraged for complex, innovative or non-conforming proposals to minimize the potential for significant or unexpected findings just prior to completing a project development phase or milestone.

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In some cases, a traffic sensitivity analysis may be required to estimate the service life of investment proposals that meet the project purpose and need, but do not require a 20-year design life. These include operational, safety and traffic impact mitigation proposals regardless of funding source. A service life estimate for each strategy is needed to facilitate life-cycle analyses to inform decision-makers of:

- Performance benefits.
- The ratio of benefits versus costs for the estimated service life.
- Costs associated with the safety and operational performance expected at and beyond the service life.
- The future improvement concept needed to extend the service life.

DELEGATION

The authority to recommend the use of the single point interchange and yield-controlled roundabouts for particular intersections and interchanges is hereby delegated from the HQ Traffic Operations Liaison Engineers to the District Traffic Operations engineers responsible for the operation and performance of specific state highways and intersections. This transfer of authority is conditioned upon compliance with the engineering study, consultation and documentation requirements contained in and referenced by this directive.

The HQ Conceptual Approval process for roundabouts is hereby replaced by the procedural requirements of this directive. In particular, the assessment/screening process (ICE Step One) will identify access strategies and configurations that are both viable and practical to implement, subject to further technical studies.

For additional information on roles and responsibilities, see Appendix B and/or contact the HQ Traffic Liaisons or District ICE Coordinators.

BACKGROUND

This directive establishes an integrated, systematic and performance-based approach to engineering and investment decisions affecting state highway intersections and interchanges, primarily through the consideration and evaluation of the following:

- Alternative intersection control practices, access configurations and management strategies.
- The context of the proposed project and highway facility, including the operating speed and speed differential among highway system users.
- The needs of drivers, pedestrians, bicyclists and commercial vehicle operators, including those with disabilities.
- The costs and cost savings related to project implementation, estimated system performance benefits and impacts, and life-cycle economic analysis.

All intersections and service interchanges are operated under some form of stop, signal or yield control.

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Intersection investment decisions will be guided and supported by:

- Life-cycle cost analysis supporting highway infrastructure investment decisions (project development, capital, and maintenance and operations costs).
- Performance analysis tools capable of determining the viability and relative effectiveness of intersection traffic control and management strategies.
- Comparative analysis among viable intersection control strategies

Current traffic control policy requires warrant and engineering studies to justify the control of major through traffic movements at particular locations. The California Manual of Uniform Traffic Control Devices (CA MUTCD) emphasizes consideration of less restrictive measures or strategies before recommending the installation of a traffic signal system.

The decision to control or regulate the flow of through traffic movements:

- Requires initial and ongoing investments for the implementation, maintenance and operation of an intersection control device or system.
- Directly affects operational and safety performance in terms of changes to the level of intersection control delay, travel time, and collision frequency and severity.

Since multiple traffic control, management strategies and configurations may be appropriate for prevailing and/or expected traffic demands and operating conditions at particular locations, it is important to estimate the performance impacts and benefits for each strategy. These estimates should reflect the expected increase or reduction in control delay, travel time and collisions. These findings provide decision-makers with the expected return on investment or cost-effectiveness of each alternative strategy.

RESOURCES

Links to technical publications and websites containing technical and informational guidance, training material, and contact information for District ICE Coordinators and the ICE Technical Assistance Program can be found at the Intersection Control Evaluation (ICE) TOPD website, at <http://onramp/hq/traffops/ICE.html>.

DEFINITIONS:

When used in this Traffic Operations Policy Directive, the intent of the text is defined as follows:

1.) Procedural Requirement – a statement of required action. The text for all procedural requirements are indicated by the word "must" or "shall" and are enclosed within a box.

Example of a procedural requirement.

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2.) Standard – a statement of required, mandatory, or specifically prohibited practice. All standards text appears in **bold** type. The verb **"shall"** is typically used. Standards are sometimes modified by Options.

3.) Guidance – a statement of recommended, but not mandatory practice or procedure in typical situations, with deviations allowed if engineering judgment or engineering study indicates the deviation to be appropriate. All Guidance statements text appears in underline type. The verb "should" is typically used. Guidance statements are sometimes modified by Options.

4.) Option – a statement of practice that is a permissive condition and carries no requirement or recommendation. Options may contain allowable modifications to a Standard or Guidance. All Option statements text appears in normal type. The verb "may" is typically used.

5.) Support – an informational statement that does not convey any degree of mandate, recommendation, authorization, prohibition, or enforceable condition. Support statements text appears in normal type. The verbs "shall," "should," and "may" are not used in Support statements.

ATTACHMENTS:

Appendix A – Diagram of ICE Process Steps, Activities, and Outcomes
Appendix B – Roles and Responsibilities for Implementation of the ICE TOPD

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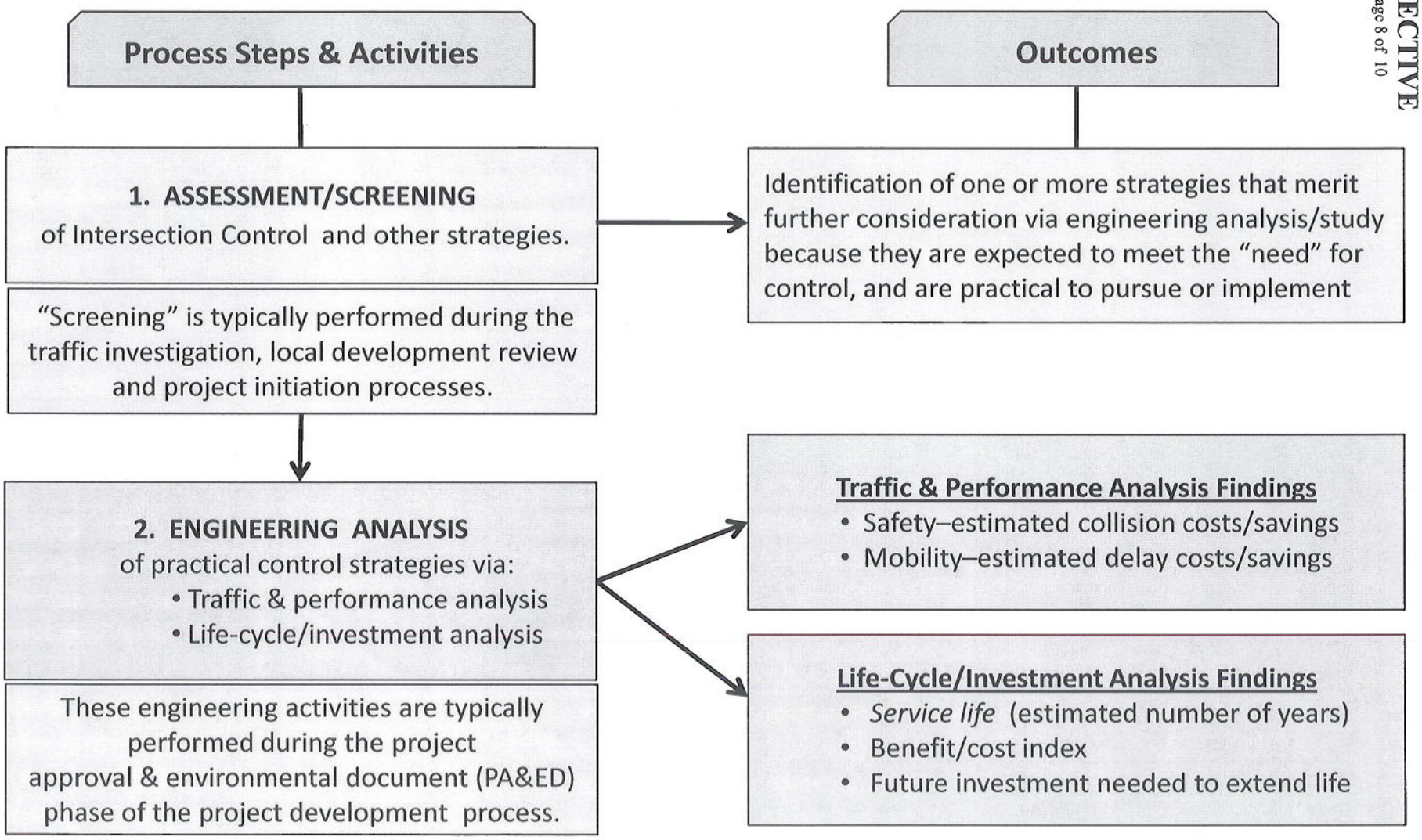
Appendix A: ICE Process Steps, Activities & Outcomes



APPENDIX B –Responsibilities for Implementation of the ICE TOPD

In general, the Division of Traffic Operations is responsible for operating the State Highway System, including intersections and interchanges. Therefore, intersection control evaluation procedures and engineering study for particular locations must be performed, coordinated and/or reviewed under the direction of the appropriate District Traffic Operations functional manager. These are usually the engineering managers who are responsible for the traffic investigation function; and, the performance of signal and multi-way stop control warrant analysis, and other intersection-related traffic studies.

When triggered by, and performed during the project planning process (that is, project initiation and/or project approval), the completion of ICE process steps and activities should be coordinated by the responsible-charge project engineer or manager.

A summary of the findings and recommendations from ICE process steps should be prepared by, or reviewed and concurred by the appropriate Division of Traffic Operations engineer. Other documentation (including calculation worksheets) should be incorporated into the project's Traffic Analysis Report. See the ICE Process Informational Guide for a sample template and information on how to present the summary of technical findings and recommendations.

The consistent and efficient implementation of this directive will be facilitated by the following individuals, activities, and services, as follows:

1. Each district will designate a Traffic Operations functional manager or engineering specialist to serve as the single point-of-contact and general resource to District, HQ, and external personnel who are responsible for implementing and supporting ICE and related activities. These District ICE Coordinators will perform and/or ensure that the following roles and services are provided upon request:

    - Resources—individuals who provide general information, guidance, and referrals on procedural and engineering study requirements.

    - Internal Consultants—individuals capable of providing technical recommendations and/or referrals to the appropriate functional managers and ICE Technical Assistance Program specialists on specific proposals and requests; see below for additional information.

    - Liaisons with HQ on various implementation, training, and policy evaluation activities.

    The districts may designate various personnel to support and/or perform the above roles and services.

2. The HQ Divisions of Traffic Operations and Design will establish, maintain and manage an ICE TAP to perform the following services:

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- Provide, collect, and transfer technical information, knowledge and expertise on intersection traffic control strategies and access configurations as well as the application of ICE process steps, activities, and analytical tools to location-specific investment proposals.

- Support the evaluation of complex, non-conforming and innovative proposals through consultation and/or peer review by appropriately qualified personnel from around the state and nation (in collaboration with the Federal Highway Administration Peer-to-Peer Program for Intersections and/or Resource Center specialists).

The TAP manager(s) will schedule monthly meetings with the District ICE Coordinators to identify, discuss, and pursue process adjustments and technical training to address implementation issues and challenges.

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ORANGE COUNTY FIRE AUTHORITY

P.O. Box 57115, Irvine, CA 92619-7115 • 1 Fire Authority Road, Irvine, CA 92602

Jeff Bowman, Fire Chief **(714) 573-6000** **www.ocfa.org**

RECEIVED

JUN 01 2017

COUNTY OF ORANGE

May 30, 2017

County of Orange
OC Public Works, OC Development Services/Planning
300 N. Flower St
Santa Ana, CA
Attn: Kevin Shannon, Contract Planner

Subject: Notice of Preparation of a Draft Environmental Impact Report (EIR No. 628)

Dear Mr. Shannon:

Thank you for the opportunity to review the subject document. The subject document states this project will have no impact on Fire Protection. From the information provided, Orange County Fire Authority does have concern that the new raised roadway median may impede access to communities and businesses. Please provide more detailed information to display access points into communities and businesses.

If you have any questions regarding this request please feel free to contact me.

Sincerely,

Tamera Rivers
Management Analyst
(714) 573-6199
tamyrivers@ocfa.org

AFFILIATED AGENCIES

Orange County Transit District

Local Transportation Authority

Service Authority for Freeway Emergencies

Consolidated Transporation Service Agency

Congestion Management Agency

Service Authority for Abandoned Vehicles

June 1, 2017

Mr. Kevin Shannon
Contract Planner
OC Development Services/Planning
300 N. Flower St.
Santa Ana, CA 92703

Subject: **Brea Canyon Road Widening Project Initial Study IP 17-046**

Dear Mr. Shannon:

Thank you for providing the Orange County Transportation Authority (OCTA) with the Initial Study for the Brea Canyon Road Widening Project (Project). The following comments are provided for your consideration:

- Page IS-5 describes the Project's purpose to improve bicycle access by providing an 8-foot shoulder. We commend the County for implementing a wide shoulder that can be utilized by bicyclists providing greater transportation options along Brea Canyon Road.

- Additionally, the County of Orange Major Riding & Hiking Trails and Off-Road Paved Bikeways Map (March 2008) and the City of Brea Bike Plan (August 2003) both propose a Class I bicycle facility along Brea Canyon Road within the Project area. OCTA recommends the proposed project evaluates the following documents to ensure consistency with local plans for bikeways where possible.
    1. County of Orange Major Riding & Hiking Trails and Off-Road Paved Bikeways Map (March 2008) http://www.ocparks.com/civicax/filebank/blobdload.aspx?BlobID=8223
    2. City of Brea - Bike Plan (August 2003) http://www.ci.brea.ca.us/DocumentCenter/View/61

- Figure 3 on Page IS-6 identifies the Project Area. OCTA would like the County to note the bus stops and bus route that serve within the Project vicinity, specifically Route 129 along Brea Blvd and Central Ave.

Throughout the development of this project, we encourage communication with OCTA on any matters discussed herein. If you have any questions or comments, please contact me at (714) 560-5907 or at dphu@octa.net.

Sincerely,

Dan Phu
Manager, Environmental Programs

THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

May 31, 2017 Via Email

Mr. Kevin Shannon, Contract Planner
Orange County Public Works, Development Services/Planning
300 N. Flower Street
Santa Ana, California 92703

Dear Mr. Shannon

Review of the
Notice of Preparation and Initial Study for the Brea Canyon Road Widening Project

The Metropolitan Water District of Southern California (Metropolitan) has reviewed the Notice of Preparation and Initial Study for the Brea Canyon Road Widening Project in the County of Orange, California. The County of Orange Department of Public Works proposes to widen a 1.75 mile segment of Brea Canyon Road from two lanes to four lanes, replace three bridges, and improve bicycle access. The County of Orange is the CEQA lead agency. This letter contains Metropolitan's comments to the potentially affected public agency.

Metropolitan is a public agency and regional water wholesaler. It is comprised of 26 member public agencies serving approximately 19 million people in portions of six counties in Southern California, including Los Angeles County. Metropolitan's mission is to provide its 5,200 square mile service area with adequate and reliable supplies of high-quality water to meet present and future needs in an environmentally and economically responsible way.

Metropolitan owns and operates the 36 inch-inside-diameter Orange Count Feeder pipeline within the proposed project area. The Orange County Feeder is located within an MWD easement and parallels Brea Canyon Road to the east from Tonner Canyon Road to the State Route 57 Under-crossing.

Based on a review of the proposed project, the project has potential to impact Metropolitan's Orange County Feeder. Metropolitan must be allowed to maintain its rights-of-way and requires unobstructed access to its facilities in order to maintain and repair its system. In order to avoid potential conflicts with Metropolitan's facilities and rights-of-way, we require that any design plans for any activity in the area of Metropolitan's pipelines or facilities be submitted for our review and written approval. Metropolitan will not permit procedures that could subject the pipeline to excessive vehicle, impact or vibratory loads. Any future design plans associated with this project should be submitted to the attention of Metropolitan's Substructures Team.

Approval of the project should be contingent on Metropolitan's approval of design plans for portions of the proposed project that could impact its facilities.

Detailed prints of drawings of Metropolitan's pipelines and rights-of-way may be obtained by calling Metropolitan's Substructures Information Line at (213) 217-7516. To assist the applicant in preparing plans that are compatible with Metropolitan's facilities and easements, we have enclosed a copy of the "Guidelines for Developments in the Area of Facilities, Fee Properties, and/or Easement of The Metropolitan Water District of Southern California." Please note that all submitted designs or plans must clearly identify Metropolitan's facilities and rights-of-way.

Additionally, please direct all future environmental review requests, environmental documents, and public hearing notices to the following address or email address:

MWD Environmental Planning
700 N. Alameda St.
Los Angeles, CA 90012
(213) 217-6337
ep@mwdh2o.com

We appreciate the opportunity to provide input to your planning process and we look forward to receiving future documentation and plans for this project. For further assistance, please contact Ms. Michelle Morrison at (213) 217-7906.

Very truly yours,

Vikki Dee Bradshaw

Vikki Dee Bradshaw
Team Manager, Environmental Planning Section

MM

Enclosures: Planning Guidelines and Map of Metropolitan Facilities in Project Vicinity

Brea Canyon Rd
Un Rd
750+00
760+00
770+00
780+00
779+15.65 BK = 778+77.09 AH
790+00
799+20.80 BK = 799+43.76 AH
57
Metropolitan Water District of Sou
Orange County Feeder and Easem
Sta. 745+00 to Sta. 776+00
County Line to Tonner Canyon Rc
Orange County Feeder

Guidelines for Developments in the Area of Facilities, Fee Properties, and/or Easements of The Metropolitan Water District of Southern California

1. Introduction

a. The following general guidelines should be followed for the design of proposed facilities and developments in the area of Metropolitan's facilities, fee properties, and/or easements.

b. We require that 3 copies of your tentative and final record maps, grading, paving, street improvement, landscape, storm drain, and utility plans be submitted for our review and written approval as they pertain to Metropolitan's facilities, fee properties and/or easements, prior to the commencement of any construction work.

2. Plans, Parcel and Tract Maps

The following are Metropolitan's requirements for the identification of its facilities, fee properties, and/or easements on your plans, parcel maps and tract maps:

a. Metropolitan's fee properties and/or easements and its pipelines and other facilities must be fully shown and identified as Metropolitan's on all applicable plans.

b. Metropolitan's fee properties and/or easements must be shown and identified as Metropolitan's with the official recording data on all applicable parcel and tract maps.

c. Metropolitan's fee properties and/or easements and existing survey monuments must be dimensionally tied to the parcel or tract boundaries.

d. Metropolitan's records of surveys must be referenced on the parcel and tract maps.

3. Maintenance of Access Along Metropolitan's Rights-of-Way

a. Proposed cut or fill slopes exceeding 10 percent are normally not allowed within Metropolitan's fee properties or easements. This is required to facilitate the use of construction and maintenance equipment, and provide access to its aboveground and belowground facilities.

b. We require that 16-foot-wide commercial-type driveway approaches be constructed on both sides of all streets crossing Metropolitan's rights-of-way. Openings are required in any median island. Access ramps, if necessary, must be at least 16-feet-wide. Grades of ramps are normally not allowed to exceed 10 percent. If the slope of an access ramp must exceed 10 percent due to the topography, the ramp must be paved. We require a 40-foot-long level area on the driveway approach to access ramps where the ramp meets the street. At Metropolitan's fee properties, we may require fences and gates.

c. The terms of Metropolitan's permanent easement deeds normally preclude the building or maintenance of structures of any nature or kind within its easements, to ensure safety and avoid interference with operation and maintenance of Metropolitan's pipelines or other facilities. Metropolitan must have vehicular access along the easements at all times for inspection, patrolling, and for maintenance of the pipelines and other facilities on a routine basis. We require a 20-foot-wide clear zone around all above-ground facilities for this routine access. This clear zone should slope away from our facility on a grade not to exceed 2 percent. We must also have access along the easements with construction equipment. An example of this is shown on Figure 1.

d. The footings of any proposed buildings adjacent to Metropolitan's fee properties and/or easements must not encroach into the fee property or easement or impose additional loading on Metropolitan's pipelines or other facilities therein. A typical situation is shown on Figure 2. Prints of the detail plans of the footings for any building or structure adjacent to the fee property or easement must be submitted for our review and written approval as they pertain to the pipeline or other facilities therein. Also, roof eaves of buildings adjacent to the easement or fee property must not overhang into the fee property or easement area.

e. Metropolitan's pipelines and other facilities, e.g. structures, manholes, equipment, survey monuments, etc. within its fee properties and/or easements must be protected from damage by the easement holder on Metropolitan's property or the property owner where Metropolitan has an easement, at no expense to Metropolitan. If the facility is a cathodic protection station it shall be located prior to any grading or excavation. The exact location, description and way of protection shall be shown on the related plans for the easement area.

4. Easements on Metropolitan's Property

a. We encourage the use of Metropolitan's fee rights-of-way by governmental agencies for public street and utility purposes, provided that such use does not interfere with Metropolitan's use of the property, the entire width of the property is accepted into the agency's public street system and fair market value is paid for such use of the right-of-way.

b. Please contact the Director of Metropolitan's Right of Way and Land Division, telephone (213) 250-6302, concerning easements for landscaping, street, storm drain, sewer, water or other public facilities proposed within Metropolitan's fee properties. A map and legal description of the requested easements must be submitted. Also, written evidence must be submitted that shows the city or county will accept the easement for the specific purposes into its public system. The grant of the easement will be subject to Metropolitan's rights to use its land for water pipelines and related purposes to the same extent as if such grant had not been made. There will be a charge for the easement. Please note that, if entry is required on the property prior to issuance of the easement, an entry permit must be obtained. There will also be a charge for the entry permit.

5. Landscaping

Metropolitan's landscape guidelines for its fee properties and/or easements are as follows:

a. A green belt may be allowed within Metropolitan's fee property or easement.

b. All landscape plans shall show the location and size of Metropolitan's fee property and/or easement and the location and size of Metropolitan's pipeline or other facilities therein.

c. Absolutely no trees will be allowed within 15 feet of the centerline of Metropolitan's existing or future pipelines and facilities.

d. Deep-rooted trees are prohibited within Metropolitan's fee properties and/or easements. Shallow-rooted trees are the only trees allowed. The shallow-rooted trees will not be permitted any closer than 15 feet from the centerline of the pipeline, and such trees shall not be taller than 25 feet with a root spread no greater than 20 feet in diameter at maturity. Shrubs, bushes, vines, and ground cover are permitted, but larger shrubs and bushes should not be planted directly over our pipeline. Turf is acceptable. We require submittal of landscape plans for Metropolitan's prior review and written approval. (See Figure 3).

e. The landscape plans must contain provisions for Metropolitan's vehicular access at all times along its rights-of-way to its pipelines or facilities therein. Gates capable of accepting Metropolitan's locks are required in any fences across its rights-of-way. Also, any walks or drainage facilities across its access route must be constructed to AASHTO H-20 loading standards.

f. Rights to landscape any of Metropolitan's fee properties must be acquired from its Right of Way and Land Division. Appropriate entry permits must be obtained prior to any entry on its property. There will be a charge for any entry permit or easements required.

6. Fencing

Metropolitan requires that perimeter fencing of its fee properties and facilities be constructed of universal chain link, 6 feet in height and topped with 3 strands of barbed wire angled upward and outward at a 45 degree angle or an approved equal for a total fence height of 7 feet. Suitable substitute fencing may be considered by Metropolitan. (Please see Figure 5 for details).

7. Utilities in Metropolitan's Fee Properties and/or Easements or Adjacent to Its Pipeline in Public Streets

Metropolitan's policy for the alinement of utilities permitted within its fee properties and/or easements and street rights-of-way is as follows:

a. Permanent structures, including catch basins, manholes, power poles, telephone riser boxes, etc., shall not be located within its fee properties and/or easements.

b. We request that permanent utility structures within public streets, in which Metropolitan's facilities are constructed under the Metropolitan Water District Act, be placed as far from our pipeline as possible, but not closer than 5 feet from the outside of our pipeline.

c. The installation of utilities over or under Metropolitan's pipeline(s) must be in accordance with the requirements shown on the enclosed prints of Drawings Nos. C-11632 and C-9547. Whenever possible we request a minimum of one foot clearance between Metropolitan's pipe and your facility. Temporary support of Metropolitan's pipe may also be required at undercrossings of its pipe in an open trench. The temporary support plans must be reviewed and approved by Metropolitan.

d. Lateral utility crossings of Metropolitan's pipelines must be as perpendicular to its pipeline alinement as practical. Prior to any excavation our pipeline shall be located manually and any excavation within two feet of our pipeline must be done by hand. This shall be noted on the appropriate drawings.

e. Utilities constructed longitudinally within Metropolitan's rights-of-way must be located outside the theoretical trench prism for uncovering its pipeline and must be located parallel to and as close to its rights-of-way lines as practical.

f. When piping is jacked or installed in jacked casing or tunnel under Metropolitan's pipe, there must be at least two feet of vertical clearance between the bottom of Metropolitan's pipe and the top of the jacked pipe, jacked casing or tunnel. We also require that detail drawings of the shoring for the jacking or tunneling pits be submitted for our review and approval. Provisions must be made to grout any voids around the exterior of the jacked pipe, jacked casing or tunnel. If the piping is installed in a jacked casing or tunnel the annular space between the piping and the jacked casing or tunnel must be filled with grout.

g. Overhead electrical and telephone line requirements:

1) Conductor clearances are to conform to the California State Public Utilities Commission, General Order 95, for Overhead Electrical Line Construction or at a greater clearance if required by Metropolitan. Under no circumstances shall clearance be less than 35 feet.

2) A marker must be attached to the power pole showing the ground clearance and line voltage, to help prevent damage to your facilities during maintenance or other work being done in the area.

3) Line clearance over Metropolitan's fee properties and/or easements shall be shown on the drawing to indicate the lowest point of the line under the most adverse conditions including consideration of sag, wind load, temperature change, and support type. We require that overhead lines be located at least 30 feet laterally away from all above-ground structures on the pipelines.

4) When underground electrical conduits, 120 volts or greater, are installed within Metropolitan's fee property and/or easement, the conduits must be incased in a minimum of three inches of red concrete. Where possible, above ground warning signs must also be placed at the right-of-way lines where the conduits enter and exit the right-of-way.

h. The construction of sewerlines in Metropolitan's fee properties and/or easements must conform to the California Department of Health Services Criteria for the Separation of Water Mains and Sanitary Services and the local City or County Health Code Ordinance as it relates to installation of sewers in the vicinity of pressure waterlines. The construction of sewerlines should also conform to these standards in street rights-of- way.

i. Cross sections shall be provided for all pipeline crossings showing Metropolitan's fee property and/or easement limits and the location of our pipeline(s). The exact locations of the crossing pipelines and their elevations shall be marked on as-built drawings for our information.

j. Potholing of Metropolitan's pipeline is required if the vertical clearance between a utility and Metropolitan's pipeline is indicated on the plan to be one foot or less. If the indicated clearance is between one and two feet, potholing is suggested. Metropolitan will provide a representative to assists others in locating and identifying its pipeline. Two-working days notice is requested.

k. Adequate shoring and bracing is required for the full depth of the trench when the excavation encroaches within the zone shown on Figure 4.

l. The location of utilities within Metropolitan's fee property and/or easement shall be plainly marked to help prevent damage during maintenance or other work done in the area. Detectable tape over buried utilities should be placed a minimum of 12 inches above the utility and shall conform to the following requirements:

1) Water pipeline: A two-inch blue warning tape shall be imprinted with:

"CAUTION BURIED WATER PIPELINE"

2) Gas, oil, or chemical pipeline: A two-inch yellow warning tape shall be imprinted with:

"CAUTION BURIED _____ PIPELINE"

3) Sewer or storm drain pipeline: A two-inch green warning tape shall be imprinted with:

"CAUTION BURIED _____ PIPELINE"

4) Electric, street lighting, or traffic signals conduit: A two-inch red warning tape shall be imprinted with:

"CAUTION BURIED _____ CONDUIT"

5) Telephone, or television conduit: A two-inch orange warning tape shall be imprinted with:

"CAUTION BURIED _____ CONDUIT"

m. Cathodic Protection requirements:

1) If there is a cathodic protection station for Metropolitan's pipeline in the area of the proposed work, it shall be located prior to any grading or excavation. The exact location, description and manner of protection shall be shown on all applicable plans. Please contact Metropolitan's Corrosion Engineering Section, located at Metropolitan's F. E. Weymouth Softening and Filtration Plant, 700 North Moreno Avenue, La Verne, California 91750, telephone (714) 593-7474, for the locations of Metropolitan's cathodic protection stations.

2) If an induced-current cathodic protection system is to be installed on any pipeline crossing Metropolitan's pipeline, please contact Mr. Wayne E. Risner at (714) 593-7474 or (213) 250-5085. He will review the proposed system and determine if any conflicts will arise with the existing cathodic protection systems installed by Metropolitan.

3) Within Metropolitan's rights-of-way, pipelines and carrier pipes (casings) shall be coated with an approved protective coating to conform to Metropolitan's requirements, and shall be maintained in a neat and orderly condition as directed by Metropolitan. The application and monitoring of cathodic protection on the pipeline and casing shall conform to Title 49 of the Code of Federal Regulations, Part 195.

4) If a steel carrier pipe (casing) is used:

(a) Cathodic protection shall be provided by use of a sacrificial magnesium anode (a sketch showing the cathodic protection details can be provided for the designers information).

(b) The steel carrier pipe shall be protected with a coal tar enamel coating inside and out in accordance with AWWA C203 specification.

n. All trenches shall be excavated to comply with the CAL/OSHA Construction Safety Orders, Article 6, beginning with Sections 1539 through 1547. Trench backfill shall be placed in 8-inch lifts and shall be compacted to 95 percent relative compaction (ASTM D698) across roadways and through protective dikes. Trench backfill elsewhere will be compacted to 90 percent relative compaction (ASTM D698).

o. Control cables connected with the operation of Metropolitan's system are buried within streets, its fee properties and/or easements. The locations and elevations of these cables shall be shown on the drawings. The drawings shall note that prior to any excavation in the area, the control cables shall be located and measures shall be taken by the contractor to protect the cables in place.

p. Metropolitan is a member of Underground Service Alert (USA). The contractor (excavator) shall contact USA at 1-800-422-4133 (Southern California) at least 48 hours prior to starting any excavation work. The contractor will be liable for any damage to Metropolitan's facilities as a result of the construction.

8. Paramount Right

Facilities constructed within Metropolitan's fee properties and/or easements shall be subject to the paramount right of Metropolitan to use its fee properties and/or easements for the purpose for which they were acquired. If at any time Metropolitan or its assigns should, in the exercise of their rights, find it necessary to remove any of the facilities from the fee properties and/or easements, such removal and replacement shall be at the expense of the owner of the facility.

9. Modification of Metropolitan's Facilities

When a manhole or other of Metropolitan's facilities must be modified to accommodate your construction or reconstruction, Metropolitan will modify the facilities with its forces. This should be noted on the construction plans. The estimated cost to perform this modification will be given to you and we will require a deposit for this amount before the work is performed. Once the deposit is received, we will schedule the work. Our forces will coordinate the work with your contractor. Our final billing will be based on actual cost incurred, and will include materials, construction, engineering plan review, inspection, and administrative overhead charges calculated in accordance with Metropolitan's standard accounting practices. If the cost is less than the deposit, a refund will be made; however, if the cost exceeds the deposit, an invoice will be forwarded for payment of the additional amount.

10. Drainage

a. Residential or commercial development typically increases and concentrates the peak storm water runoff as well as the total yearly storm runoff from an area, thereby increasing the requirements for storm drain facilities downstream of the development. Also, throughout the year water from landscape irrigation, car washing, and other outdoor domestic water uses flows into the storm drainage system resulting in weed abatement, insect infestation, obstructed access and other problems. Therefore, it is Metropolitan's usual practice not to approve plans that show discharge of drainage from developments onto its fee properties and/or easements.

b. If water must be carried across or discharged onto Metropolitan's fee properties and/or easements, Metropolitan will insist that plans for development provide that it be carried by closed conduit or lined open channel approved in writing by Metropolitan. Also the drainage facilities must be maintained by others, e.g., city, county, homeowners association, etc. If the development proposes changes to existing drainage features, then the developer shall make provisions to provide for replacement and these changes must be approved by Metropolitan in writing.

11. Construction Coordination

During construction, Metropolitan's field representative will make periodic inspections. We request that a stipulation be added to the plans or specifications for notification of Mr. _____ of Metropolitan's Operations Services Branch, telephone (213) 250-____, at least two working days prior to any work in the vicinity of our facilities.

12. Pipeline Loading Restrictions

a. Metropolitan's pipelines and conduits vary in structural strength, and some are not adequate for AASHTO H-20 loading. Therefore, specific loads over the specific sections of pipe or conduit must be reviewed and approved by Metropolitan. However, Metropolitan's pipelines are typically adequate for AASHTO H-20 loading provided that the cover over the pipeline is not less than four feet or the cover is not substantially increased. If the temporary cover over the pipeline during construction is between three and four feet, equipment must restricted to that which

imposes loads no greater than AASHTO H-10. If the cover is between two and three feet, equipment must be restricted to that of a Caterpillar D-4 tract-type tractor. If the cover is less than two feet, only hand equipment may be used. Also, if the contractor plans to use any equipment over Metropolitan's pipeline which will impose loads greater than AASHTO H-20, it will be necessary to submit the specifications of such equipment for our review and approval at least one week prior to its use. More restrictive requirements may apply to the loading guideline over the San Diego Pipelines 1 and 2, portions of the Orange County Feeder, and the Colorado River Aqueduct. Please contact us for loading restrictions on all of Metropolitan's pipelines and conduits.

b. The existing cover over the pipeline shall be maintained unless Metropolitan determines that proposed changes do not pose a hazard to the integrity of the pipeline or an impediment to its maintenance.

13. Blasting

a. At least 20 days prior to the start of any drilling for rock excavation blasting, or any blasting, in the vicinity of Metropolitan's facilities, a two-part preliminary conceptual plan shall be submitted to Metropolitan as follows:

b. Part 1 of the conceptual plan shall include a complete summary of proposed transportation, handling, storage, and use of explosions.

c. Part 2 shall include the proposed general concept for blasting, including controlled blasting techniques and controls of noise, fly rock, airblast, and ground vibration.

14. CEQA Requirements

a. When Environmental Documents Have Not Been Prepared

1) Regulations implementing the California Environmental Quality Act (CEQA) require that Metropolitan have an opportunity to consult with the agency or consultants preparing any environmental documentation. We are required to review and consider the environmental effects of the project as shown in the Negative Declaration or Environmental Impact Report (EIR) prepared for your project before committing Metropolitan to approve your request.

2) In order to ensure compliance with the regulations implementing CEQA where Metropolitan is not the Lead Agency, the following minimum procedures to ensure compliance with the Act have been established:

a) Metropolitan shall be timely advised of any determination that a Categorical Exemption applies to the project. The Lead Agency is to advise Metropolitan that it and other agencies participating in the project have complied with the requirements of CEQA prior to Metropolitan's participation.

b) Metropolitan is to be consulted during the preparation of the Negative Declaration or EIR.

c) Metropolitan is to review and submit any necessary comments on the Negative Declaration or draft EIR.

d) Metropolitan is to be indemnified for any costs or liability arising out of any violation of any laws or regulations including but not limited to the California Environmental Quality Act and its implementing regulations.

b. When Environmental Documents Have Been Prepared

If environmental documents have been prepared for your project, please furnish us a copy for our review and files in a timely manner so that we may have sufficient time to review and comment. The following steps must also be accomplished:

1) The Lead Agency is to advise Metropolitan that it and other agencies participating in the project have complied with the requirements of CEQA prior to Metropolitan's participation.

2) You must agree to indemnify Metropolitan, its officers, engineers, and agents for any costs or liability arising out of any violation of any laws or regulations including but not limited to the California Environmental Quality Act and its implementing regulations.

15. Metropolitan's Plan-Review Cost

a. An engineering review of your proposed facilities and developments and the preparation of a letter response

giving Metropolitan's comments, requirements and/or approval that will require 8 man-hours or less of effort is typically performed at no cost to the developer, unless a facility must be modified where Metropolitan has superior rights. If an engineering review and letter response requires more than 8 man-hours of effort by Metropolitan to determine if the proposed facility or development is compatible with its facilities, or if modifications to Metropolitan's manhole(s) or other facilities will be required, then all of Metropolitan's costs associated with the project must be paid by the developer, unless the developer has superior rights.

b. A deposit of funds will be required from the developer before Metropolitan can begin its detailed engineering plan review that will exceed 8 hours. The amount of the required deposit will be determined after a cursory review of the plans for the proposed development.

c. Metropolitan's final billing will be based on actual cost incurred, and will include engineering plan review, inspection, materials, construction, and administrative overhead charges calculated in accordance with Metropolitan's standard accounting practices. If the cost is less than the deposit, a refund will be made; however, if the cost exceeds the deposit, an invoice will be forwarded for payment of the additional amount. Additional deposits may be required if the cost of Metropolitan's review exceeds the amount of the initial deposit.

16. Caution

We advise you that Metropolitan's plan reviews and responses are based upon information available to Metropolitan which was prepared by or on behalf of Metropolitan for general record purposes only. Such information may not be sufficiently detailed or accurate for your purposes. No warranty of any kind, either express or implied, is attached to the information therein conveyed as to its accuracy, and no inference should be drawn from Metropolitan's failure to comment on any aspect of your project. You are therefore cautioned to make such surveys and other field investigations as you may deem prudent to assure yourself that any plans for your project are correct.

17. Additional Information

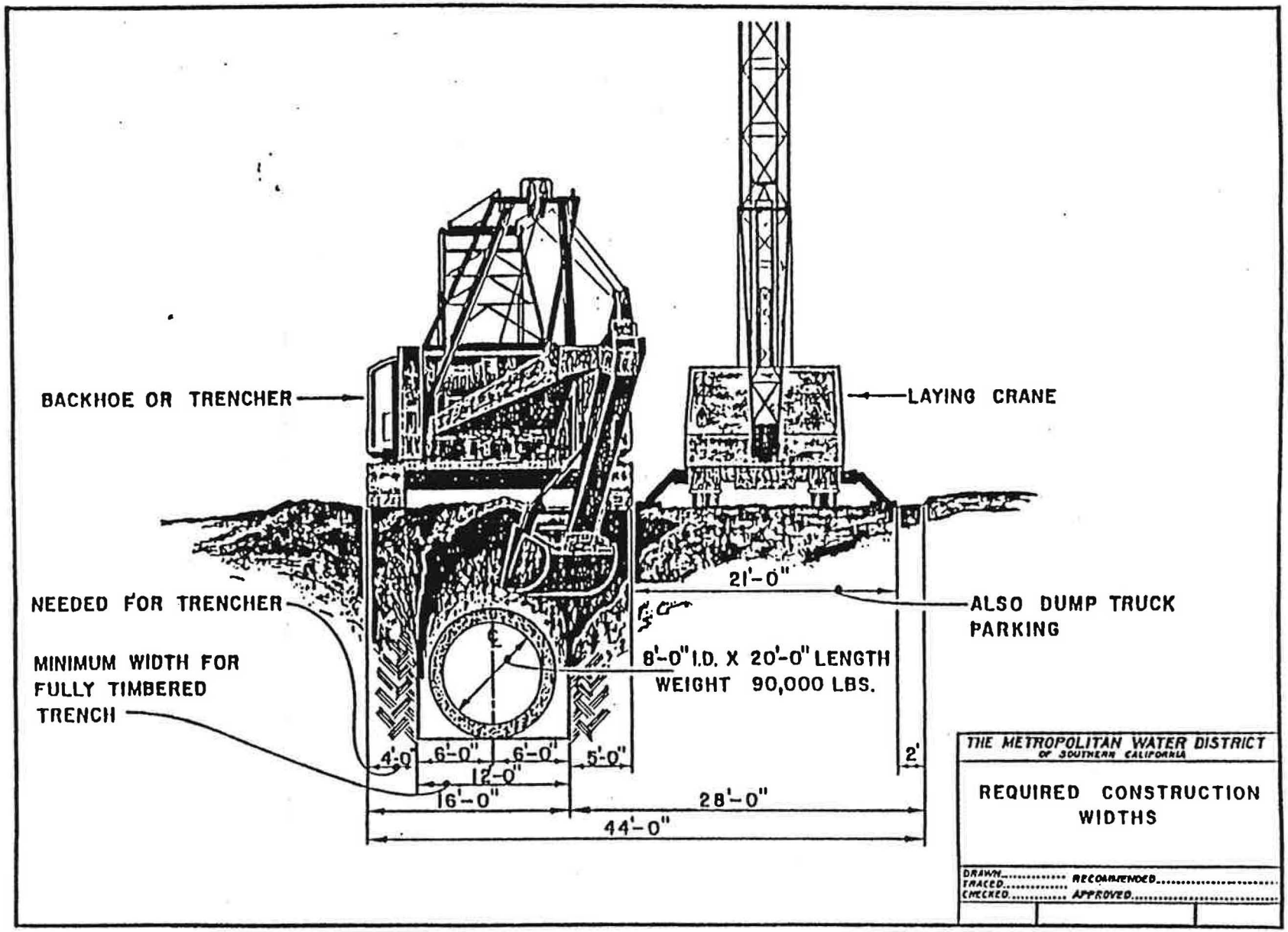
Should you require additional information, please contact:

Civil Engineering Substructures Section
Metropolitan Water District
of Southern California
P.O. Box 54153
Los Angeles, California 90054-0153
(213) 217-6000

JEH/MRW/lk

Rev. January 22, 1989

Encl.



THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

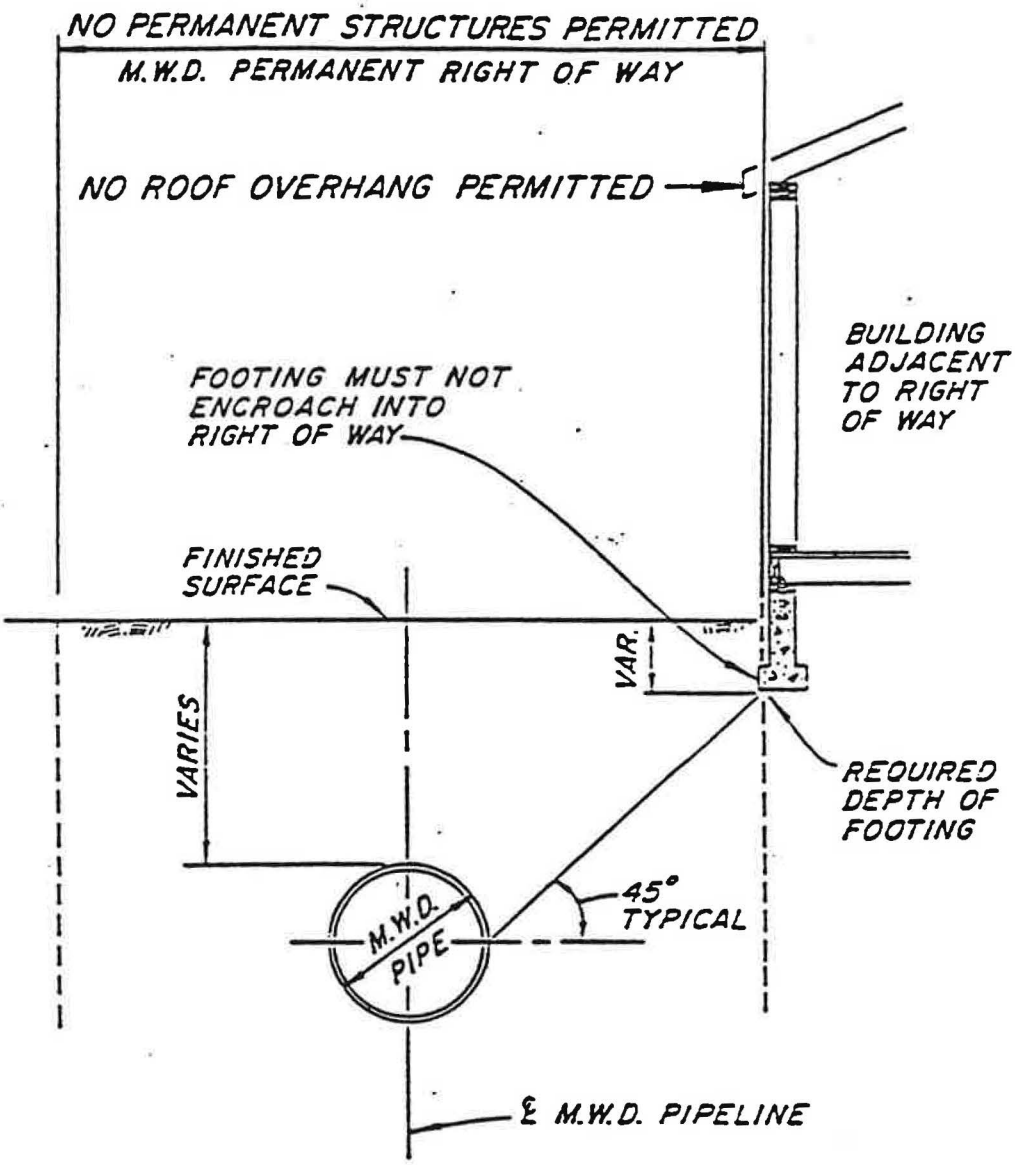
REQUIRED CONSTRUCTION WIDTHS

DRAWN..... RECOMMENDED.....
TRACED.....
CHECKED..... APPROVED.....

FIGURE 1

11-68 DIETZGEN-POST CLEARPRINT 1025

FORM NO 39 B 1000 11-68 P.O. NO. 40-5007



NOTE: M.W.D. PIPELINE SIZE, DEPTH, LOCATION AND WIDTH OF PERMANENT RIGHT OF WAY VARIES.

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

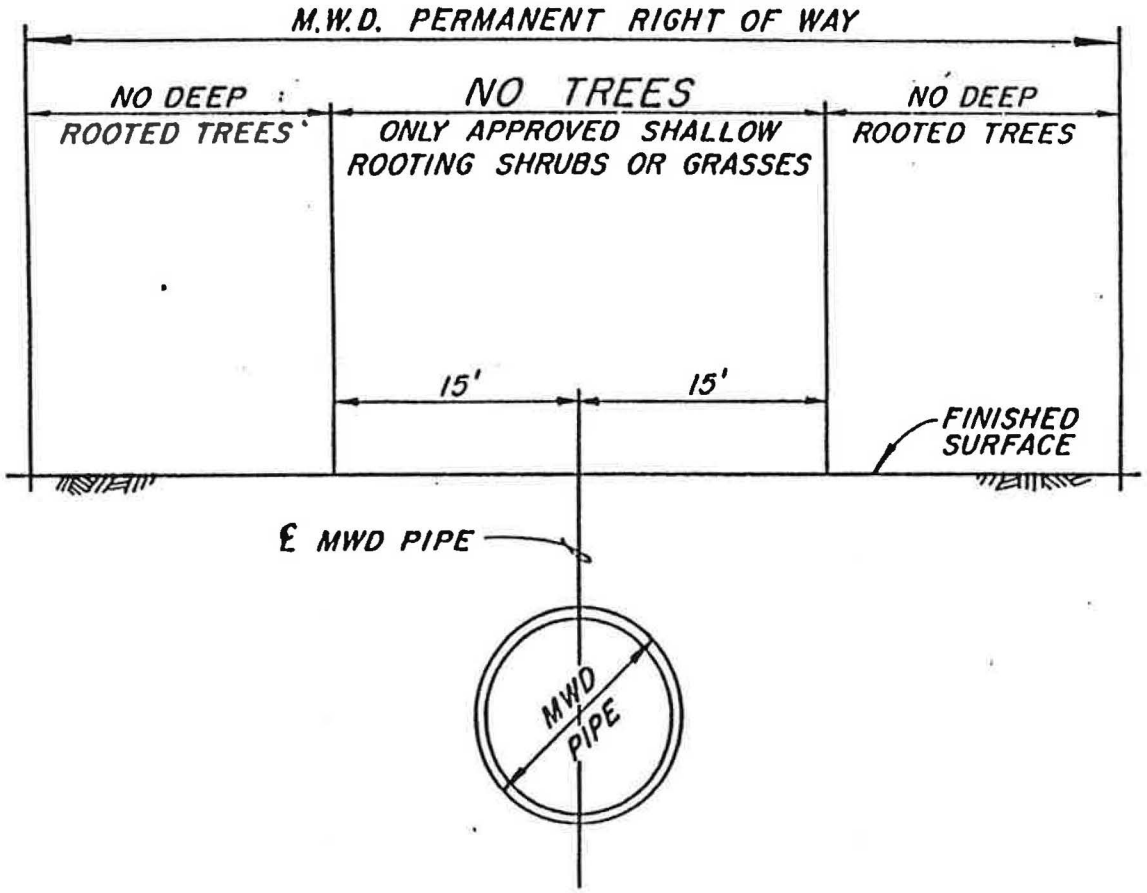
REQUIREMENTS FOR BUILDINGS AND FOOTINGS ADJACENT TO M.W.D. RIGHT OF WAY

DRAWN _____ RECOMMENDED _____
TRACED _____
CHECKED _____ APPROVED _____

FIGURE 2

FORM NO. 58 • 1000 11 57 • P.O. 97-3214

11-67 BICTEREGH-POST CLEARPRINT 1023



THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

LANDSCAPE GUIDELINES FOR M.W.D. RIGHT OF WAY

DRAWN..... RECOMMENDED.....
TRACED.....
CHECKED..... APPROVED.....

FIGURE 3

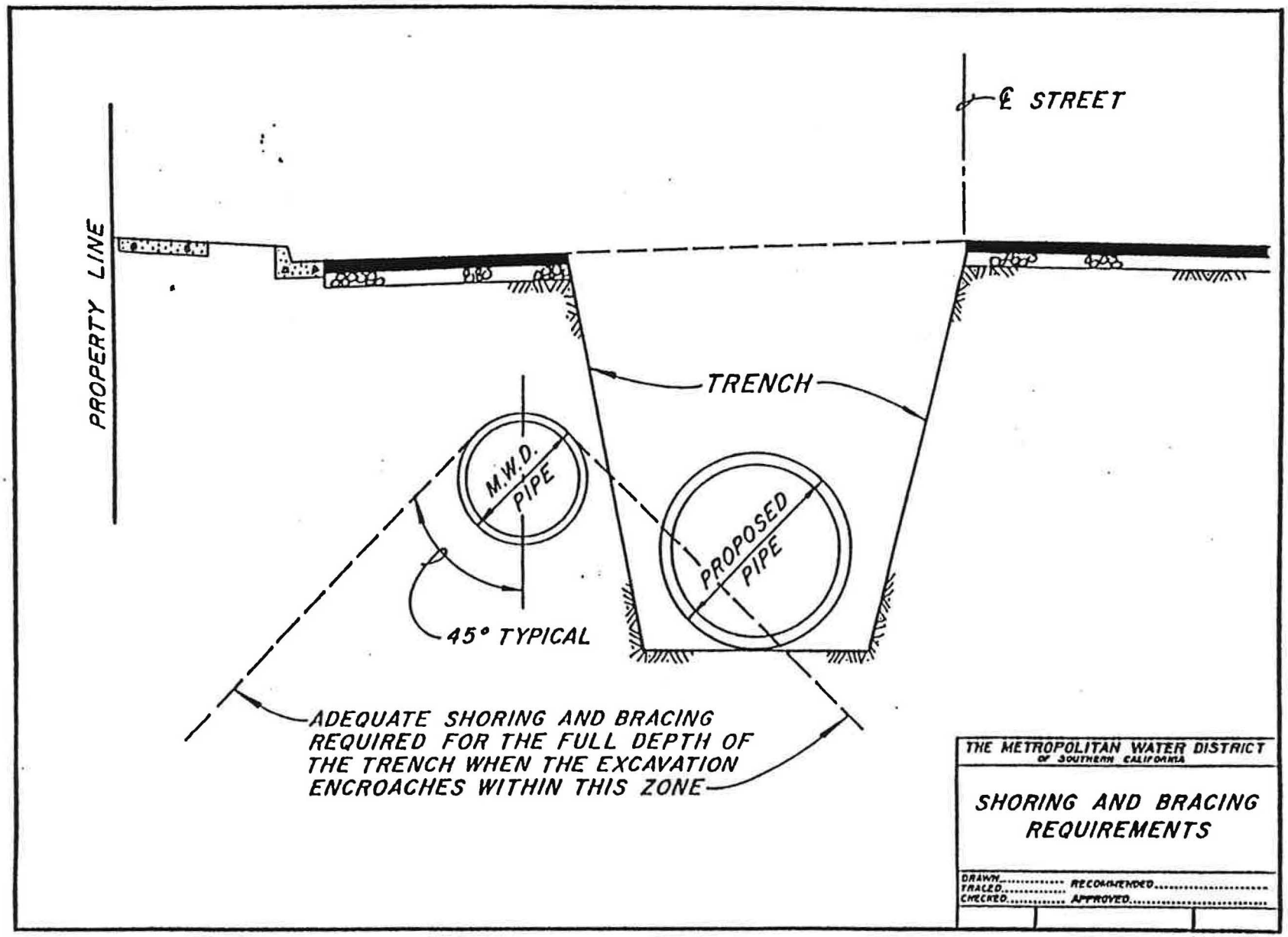
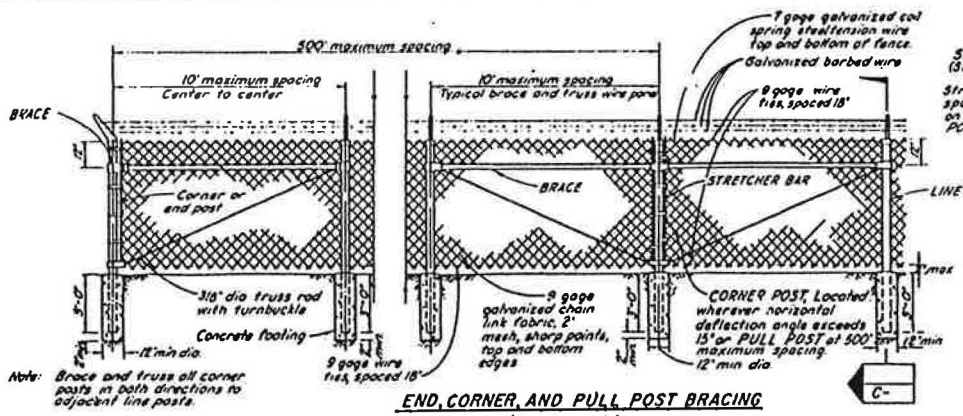


FIGURE 4

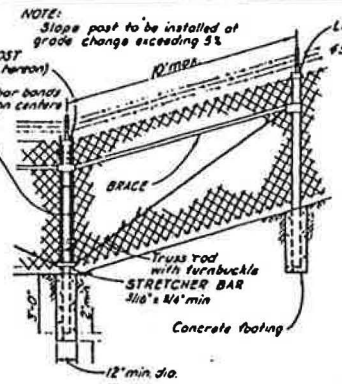
11-68 DIETZGEN-POST CLEARPRINT 1033

FORM NO. 39 9 1000 11-68 P.O. NO. 68-5407

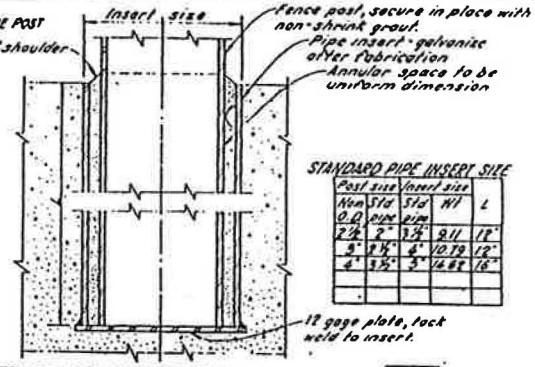
SPECIFICATIONS NO. SHEET NO.



END, CORNER, AND PULL POST BRACING
(Not to scale)



TYPICAL FENCE ON SLOPE
(Not to scale)

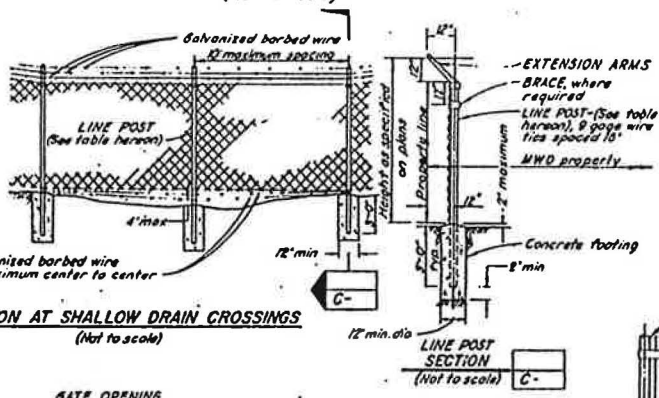


STANDARD PIPE INSERT SIZE

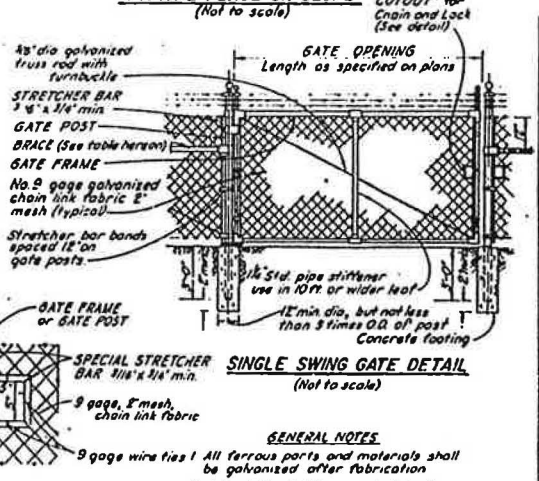
Post size Nom O.D.	Std pipe	Std pipe	Wt	L
2½	2	3½	9.11	12"
3	2½	4	10.79	12"
4	3½	5	14.88	18"

FENCE POST INSERT FOR CONCRETE WALL AND CONCRETE CURB
(Not to scale)

1



ELEVATION AT SHALLOW DRAIN CROSSINGS
(Not to scale)



SINGLE SWING GATE DETAIL
(Not to scale)

DETAIL OF CUTOUT FOR CHAIN AND LOCK
(Not to scale)

Use	Type	Nominal Size (Inches)	Actual O.D. (Inches)	Weight per Foot (Pounds)
End, corner, slope, pull and gate posts (for single gates 6 feet or less in width and double gates 12 feet or less in width) for chain link fabric 72 inches or higher	Pipe	2½	2.875	5.79
End, corner, slope, pull and gate posts (for single gates 6 feet or less in width and double gates 12 feet or less in width) for chain link fabric less than 72 inches height	Pipe	2	2.375	3.65
Gate posts for single swing gates over 6 feet but not over 13 feet in width and double swing gates over 12 feet but not over 26 feet in width.	Pipe	3½	4.000	9.11
Gate posts for single swing gates over 13 feet but not over 18 feet in width and double swing gates over 26 feet but not over 36 feet in width.	Pipe	6	6.625	18.97
Gate posts for single swing gates over 18 feet in width and double swing gates over 36 feet in width	Pipe	8	8.625	24.70
Line posts for chain link fabric 72 inches or higher	Pipe	2	2.375	3.65
	H-Section	2¾x 1¾		4.10
Line posts for chain link fabric less than 72 inches in height.	Pipe	1¼	1.900	2.72
	H-Section	1¾x 1¾		2.80
Braces	Pipe	1¼	1.660	2.27
	H-Section	1¾x 1¾		2.90
Fragie for gates	Pipe	1¼	1.900	2.72
Stiffeners for gates	Pipe	1¼	1.660	2.27

GENERAL NOTES

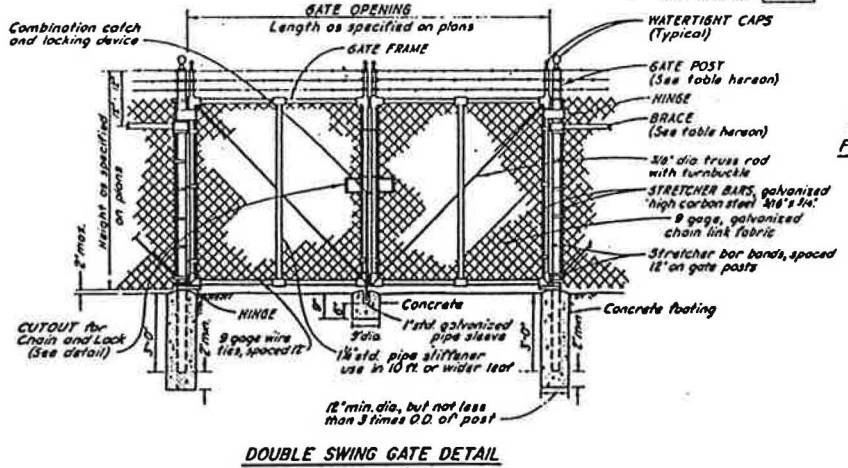
1 All ferrous parts and materials shall be galvanized after fabrication

2 Adjustable tightener shall be turnbuckle or equivalent, having minimum 6" take-up

3 Extension arms for barbed wire shall be steel, malleable iron or wrought iron and shall be attached to the top of the post with a ⅜ inch round head rivet. The extension arms shall carry three wires each at approximately 5 inch centers in a plane approximately 45° from the vertical.

4 All gate hinges shall be heavy duty malleable iron or steel, industrial service type, 270 degree swing, of approved quality and design.

5 Secure cap to post with ⅜ inch round head rivet



DOUBLE SWING GATE DETAIL
(Not to scale)

REVISION COORDINATION CHECK	ORIGINAL RELEASE	MECH.	STRUCT.	ELEC.	CIVIL	SPECS.	DATE
	INTERSECTIONAL COORDINATION CHECK						

NO.	DATE	DWN.	CKD.	REVISION	SEC.	APP.

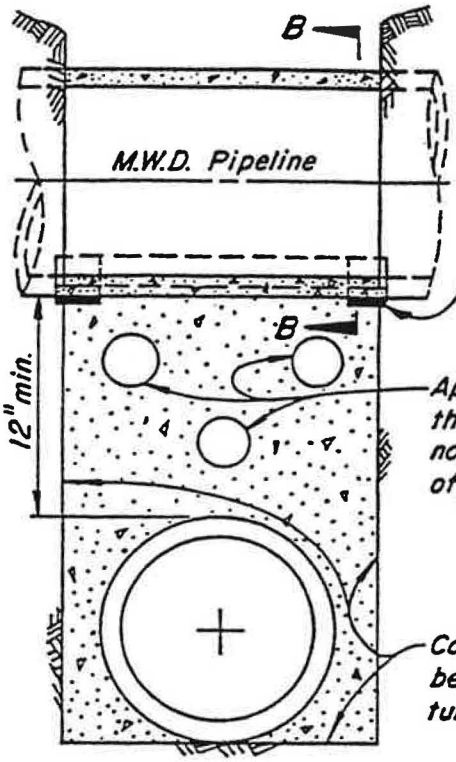
THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA
DISTRIBUTION SYSTEM

CHAIN LINK FENCE DETAILS

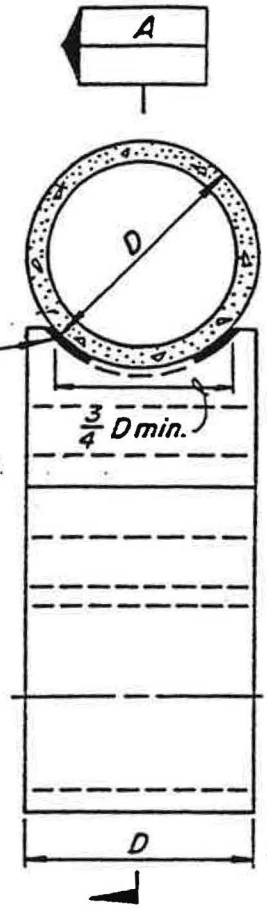
DESIGNED
DRAWN
CHECKED
RECOMMENDED
APPROVED
WORK ORDER NO.
LOS ANGELES

FIGURE 5

FORM NO. 88-8 1000 11-67 P.O. 67-5114

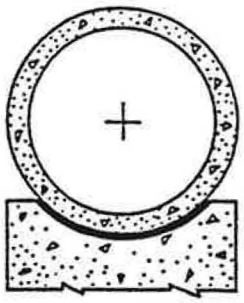


SECTION "A-A"



CROSS SECTION

1. Supporting wall shall have a firm bearing on the subgrade and against the side of the excavation.
2. Premolded expansion joint filler per ASTM D-1751-73 to be used in support for steel pipe only.
3. If trench width is 4 feet or greater, measured along centerline of M.W.D. pipe, concrete support must be constructed.
4. If trench width is less than 4 feet, clean sand backfill, compacted to 90% density in accordance with the provisions of ASTM Standard D-1557-70 may be used in lieu of the concrete support wall.



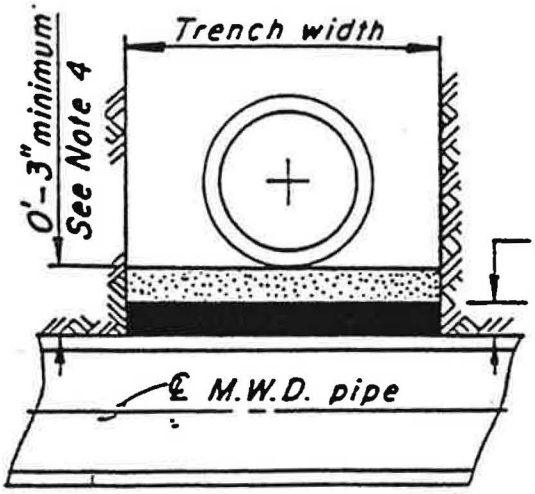
SECTION "B-B"

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

TYPICAL SUPPORT FOR M.W.D. PIPELINE

DRAWN _____ RECOMMENDED _____
TRACED _____
CHECKED _____ APPROVED _____

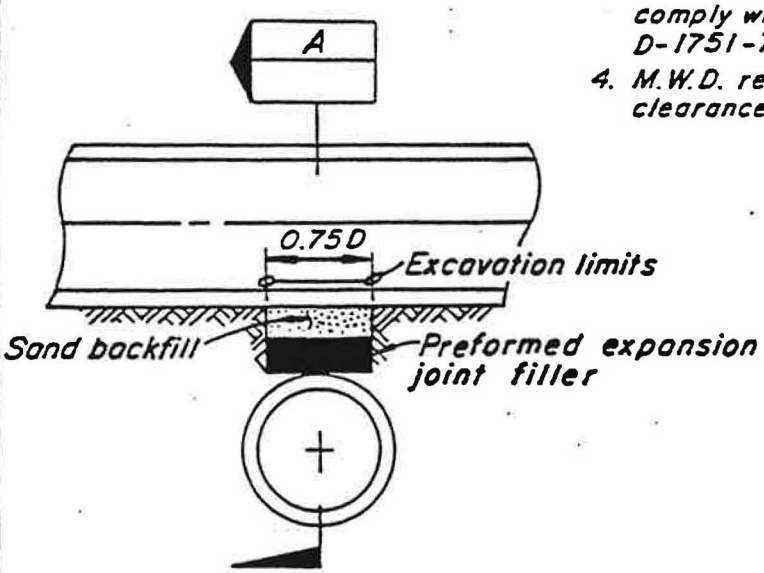
C-9547



SECTION A

NOTES

1. This method to be used where the utility line is 24" or greater in diameter and the clearance between the utility line and M.W.D. pipe is 12" or less.
2. Special protection may be required if the utility line diameter is greater than M.W.D. pipe or if the cover over the utility line to the street surface is minimal and there is 12" or less clearance between M.W.D. pipe and the utility line.
3. Preformed expansion joint filler to comply with ASTM designation D-1751-73.
4. M.W.D. requests 12" minimum clearance whenever possible.



CROSS SECTION

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

TYPICAL EXPANSION JOINT FILLER PROTECTION FOR OVERCROSSING OF M.W.D. PIPELINE

DRAWN _____ RECOMMENDED _____
TRACED _____
CHECKED _____ APPROVED _____

C-11632

FORM NO 38 8 1000 11-67 P.O. 87-9314

STATE OF CALIFORNIA
GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

Notice of Preparation

May 2, 2017

To: Reviewing Agencies

Re: Brea Canyon Road Widening Project
SCH# 2017051005

Attached for your review and comment is the Notice of Preparation (NOP) for the Brea Canyon Road Widening Project draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Kevin Shannon
Orange County
300 N. Flower Street
Santa Ana, CA 92703

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Attachments
cc: Lead Agency

Document Details Report
State Clearinghouse Data Base

SCH# 2017051005
Project Title Brea Canyon Road Widening Project
Lead Agency Orange County

Type NOP Notice of Preparation

Description The project is intended to address congestion during the A.M. and P.M. peak hours and is expected to enhance the level of service from an existing LOS F to LOS A, substantially improving traffic flow through the Brea Blvd/Brea Canyon area. Additionally, the project is intended to address safety by improving the design of existing curves within the project limits and reducing the potential for motorist conflicts. This would be accomplished by widening Brea Canyon Rd from two to four lanes (two lanes each direction, divided by median barrier/raised median), realigning five existing curves within the project limits, and installing a new traffic signal.

Lead Agency Contact

Name Kevin Shannon
Agency Orange County
Phone 714-667-1632 **Fax**
email
Address 300 N. Flower Street
City Santa Ana **State** CA **Zip** 92703

Project Location

County Orange
City Brea
Region
Cross Streets Brea Blvd/Brea Cyn Rd between Canyondale Dr and Orange/LA County bdry
Lat / Long 33° 56' 26" N / 117° 53' 23" W
Parcel No. mult parcels
Township 3S **Range** 10W **Section** 1 **Base** SBBM

Proximity to:

Highways SR 57
Airports
Railways UPRR
Waterways Brea Creek
Schools Brea JHS, Sonora HS, +
Land Use Use: roadway; Z: Res, specific plan, planned com., ag; GP: Res, natural open space

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Flood Plain/Flooding; Geologic/Seismic; Noise; Toxic/Hazardous; Traffic/Circulation; Water Quality; Wetland/Riparian; Landuse; Other Issues

Reviewing Agencies Resources Agency; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Wildlife, Region 5; Native American Heritage Commission; Public Utilities Commission; California Highway Patrol; Caltrans, District 12; Air Resources Board, Transportation Projects; Regional Water Quality Control Board, Region 8

Date Received 05/02/2017 **Start of Review** 05/02/2017 **End of Review** 05/31/2017

Note: Blanks in data fields result from insufficient information provided by lead agency.

Print Form

Appendix C

Notice of Completion & Environmental Document Transmittal

2017051005

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #

Project Title: Brea Canyon Road Widening Project

Lead Agency: County of Orange, OC Public Works | Contact Person: Kevin Shannon

Mailing Address: 300 North Flower Street | Phone: 714.667.1632

City: Santa Ana | Zip: 92703 | County: Orange

Project Location: County: Orange | City/Nearest Community: City of Brea

Cross Streets: Brea Blvd/Brea Cyn Rd between Canyondale Dr and Orange/Los Angeles County bdry | Zip Code: 92821

Longitude/Latitude (degrees, minutes and seconds): 33 ° 56 ′ 26 ″ N / 117 ° 53 ′ 23 ″ W | Total Acres: 21 (est.)

Assessor's Parcel No.: multiple parcels | Section: 1 | Twp.: 3S | Range: 10W | Base: SBB&M

Within 2 Miles: State Hwy #: SR-57 | Waterways: Brea Creek

Airports: | Railways: UPRR (not used) | Schools: Brea JHS, Sonora HS, +

Document Type:

CEQA: ☒ NOP ☐ Early Cons ☐ Neg Dec ☐ Mit Neg Dec ☐ Draft EIR ☐ Supplement/Subsequent EIR (Prior SCH No.) ☐ Other:

NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI Other: ☐ Joint Document ☐ Final Document ☐ Other:

Governor's Office of Planning & Research

MAY 02 2017

STATE CLEARINGHOUSE

Local Action Type:

☐ General Plan Update ☐ General Plan Amendment ☐ General Plan Element ☐ Community Plan ☐ Specific Plan ☐ Master Plan ☐ Planned Unit Development ☐ Site Plan ☐ Rezone ☐ Prezone ☐ Use Permit ☐ Land Division (Subdivision, etc.) ☐ Annexation ☐ Redevelopment ☐ Coastal Permit ☐ Other:

Development Type:

☐ Residential: Units ____ Acres ____
☐ Office: Sq.ft. ____ Acres ____ Employees ____
☐ Commercial: Sq.ft. ____ Acres ____ Employees ____
☐ Industrial: Sq.ft. ____ Acres ____ Employees ____
☐ Educational: ____
☐ Recreational: ____
☐ Water Facilities: Type ____ MGD ____
☒ Transportation: Type Road widening: 2 to 4 lanes
☐ Mining: Mineral ____
☐ Power: Type ____ MW ____
☐ Waste Treatment: Type ____ MGD ____
☐ Hazardous Waste: Type ____
☐ Other: ____

Project Issues Discussed in Document:

☒ Aesthetic/Visual
☐ Agricultural Land
☒ Air Quality
☒ Archeological/Historical
☒ Biological Resources
☐ Coastal Zone
☒ Drainage/Absorption
☐ Economic/Jobs
☐ Fiscal
☒ Flood Plain/Flooding
☐ Forest Land/Fire Hazard
☒ Geologic/Seismic
☐ Minerals
☒ Noise
☐ Population/Housing Balance
☐ Public Services/Facilities
☐ Recreation/Parks
☐ Schools/Universities
☐ Septic Systems
☐ Sewer Capacity
☐ Soil Erosion/Compaction/Grading
☐ Solid Waste
☒ Toxic/Hazardous
☒ Traffic/Circulation
☐ Vegetation
☒ Water Quality
☐ Water Supply/Groundwater
☒ Wetland/Riparian
☐ Growth Inducement
☒ Land Use
☐ Cumulative Effects
☒ Other: Greenhouse Gas

Present Land Use/Zoning/General Plan Designation:

Use: roadway | Zoning: Residential, Specific Plan, Planned Com., Agriculture | General Plan: Residential, Natural Open Space

Project Description: *(please use a separate page if necessary)*

The Project is intended to address congestion during the A.M and P.M. peak hours and is expected to enhance the Level of Service (LOS) from an existing LOS F to LOS A, substantially improving traffic flow through the Brea Boulevard/Brea Canyon area. Additionally, the Project is intended to address safety by improving the design of existing curves within the project limits and reducing the potential for motorist conflicts. This would be accomplished by widening Brea Canyon Road from two to four lanes (two lanes each direction, divided by median barrier/raised median), realigning five existing curves within the project limits, and installing a new traffic signal.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Revised 2010

NOP Distribution List

County: Orange **SCH#** 2017051005

esources Agency

- [ ] **Resources Agency** Nadell Gayou
- [ ] **Dept. of Boating & Waterways** Denise Peterson
- [ ] **California Coastal Commission** Elizabeth A. Fuchs
- [ ] **Colorado River Board** Lisa Johansen
- [ ] **Dept. of Conservation** Crina Chan
- [ ] **Cal Fire** Dan Foster
- [ ] **Central Valley Flood Protection Board** James Herota
- [ ] **Office of Historic Preservation** Ron Parsons
- [ ] **Dept of Parks & Recreation** Environmental Stewardship Section
- [ ] **S.F. Bay Conservation & Dev't. Comm.** Steve Goldbeck
- [ ] **Dept. of Water Resources** Resources Agency Nadell Gayou

Fish and Game

- [ ] **Depart. of Fish & Wildlife** Scott Flint Environmental Services Division
- [ ] **Fish & Wildlife Region 1** Curt Babcock
- [ ] **Fish & Wildlife Region 1E** Laurie Harnsberger
- [ ] **Fish & Wildlife Region 2** Jeff Drongesen
- [ ] **Fish & Wildlife Region 3** Craig Weightman
- [ ] **Fish & Wildlife Region 4** Julie Vance
- [ ] **Fish & Wildlife Region 5** Leslie Newton-Reed Habitat Conservation Program
- [ ] **Fish & Wildlife Region 6** Tiffany Ellis Habitat Conservation Program
- [ ] **Fish & Wildlife Region 6 I/M** Heidi Calvert Inyo/Mono, Habitat Conservation Program
- [ ] **Dept. of Fish & Wildlife M** William Paznokas Marine Region

Other Departments

- [ ] **California Department of Education** Lesley Taylor
- [ ] **OES (Office of Emergency Services)** Monique Wilber
- [ ] **Food & Agriculture** Sandra Schubert Dept. of Food and Agriculture
- [ ] **Dept. of General Services** Cathy Buck Environmental Services Section
- [ ] **Housing & Comm. Dev.** CEQA Coordinator Housing Policy Division

Independent Commissions,Boards

- [ ] **Delta Protection Commission** Erik Vink
- [ ] **Delta Stewardship Council** Kevan Samsam
- [ ] **California Energy Commission** Eric Knight
- [ ] **Native American Heritage Comm.** Debbie Treadway
- [ ] **Public Utilities Commission** Supervisor
- [ ] **Santa Monica Bay Restoration** Guangyu Wang
- [ ] **State Lands Commission** Jennifer Deleong
- [ ] **Tahoe Regional Planning Agency (TRPA)** Cherry Jacques

Cal State Transportation Agency CalSTA

- [ ] **Caltrans - Division of Aeronautics** Philip Crimmins
- [ ] **Caltrans – Planning HQ LD-IGR** Christian Bushong
- [ ] **California Highway Patrol** Suzann Ikeuchi Office of Special Projects

Dept. of Transportation

- [ ] **Caltrans, District 1** Rex Jackman
- [ ] **Caltrans, District 2** Marcelino Gonzalez
- [ ] **Caltrans, District 3** Eric Federicks – South Susan Zanchi - North
- [ ] **Caltrans, District 4** Patricia Maurice
- [ ] **Caltrans, District 5** Larry Newland
- [ ] **Caltrans, District 6** Michael Navarro
- [ ] **Caltrans, District 7** Dianna Watson
- [ ] **Caltrans, District 8** Mark Roberts
- [ ] **Caltrans, District 9** Gayle Rosander
- [ ] **Caltrans, District 10** Tom Dumas
- [ ] **Caltrans, District 11** Jacob Armstrong
- [ ] **Caltrans, District 12** Maureen El Harake

Cal EPA

Air Resources Board

- [ ] **Airport & Freight** Jack Wursten
- [ ] **Transportation Projects** Nesamani Kalandiyur
- [ ] **Industrial/Energy Projects** Mike Tollstrup
- [ ] **California Department of Resources, Recycling & Recovery** Sue O'Leary
- [ ] **State Water Resources Control Board** Regional Programs Unit Division of Financial Assistance
- [ ] **State Water Resources Control Board** Cindy Forbes – Asst Deputy Division of Drinking Water
- [ ] **State Water Resources Control Board** **Div. Drinking Water #**_____
- [ ] **State Water Resources Control Board** Student Intern, 401 Water Quality Certification Unit Division of Water Quality
- [ ] **State Water Resouces Control Board** Phil Crader Division of Water Rights
- [ ] **Dept. of Toxic Substances Control** CEQA Tracking Center
- [ ] **Department of Pesticide Regulation** CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

- [ ] **RWQCB 1** Cathleen Hudson North Coast Region (1)
- [ ] **RWQCB 2** Environmental Document Coordinator San Francisco Bay Region (2)
- [ ] **RWQCB 3** Central Coast Region (3)
- [ ] **RWQCB 4** Teresa Rodgers Los Angeles Region (4)
- [ ] **RWQCB 5S** Central Valley Region (5)
  - [ ] **RWQCB 5F** Central Valley Region (5) Fresno Branch Office
  - [ ] **RWQCB 5R** Central Valley Region (5) Redding Branch Office
- [ ] **RWQCB 6** Lahontan Region (6)
  - [ ] **RWQCB 6V** Lahontan Region (6) Victorville Branch Office
- [ ] **RWQCB 7** Colorado River Basin Region (7)
- [ ] **RWQCB 8** Santa Ana Region (8)
- [ ] **RWQCB 9** San Diego Region (9)

- [ ] **Other** _____
- [ ] _____ Conservancy

Last Updated 4/28/17

Document Details Report
State Clearinghouse Data Base

SCH# 2017051005
Project Title Brea Canyon Road Widening Project
Lead Agency Orange County

Type NOP Notice of Preparation

Description The project is intended to address congestion during the A.M. and P.M. peak hours and is expected to enhance the level of service from an existing LOS F to LOS A, substantially improving traffic flow through the Brea Blvd/Brea Canyon area. Additionally, the project is intended to address safety by improving the design of existing curves within the project limits and reducing the potential for motorist conflicts. This would be accomplished by widening Brea Canyon Rd from two to four lanes (two lanes each direction, divided by median barrier/raised median), realigning five existing curves within the project limits, and installing a new traffic signal.

Lead Agency Contact

Name Kevin Shannon
Agency Orange County
Phone 714-667-1632 **Fax**
email
Address 300 N. Flower Street
City Santa Ana **State** CA **Zip** 92703

Project Location

County Orange
City Brea
Region
Cross Streets Brea Blvd/Brea Cyn Rd between Canyondale Dr and Orange/LA County bdry
Lat / Long 33° 56' 26" N / 117° 53' 23" W
Parcel No. mult parcels
Township 3S **Range** 10W **Section** 1 **Base** SBBM

Proximity to:

Highways SR 57
Airports
Railways UPRR
Waterways Brea Creek
Schools Brea JHS, Sonora HS, +
Land Use Use: roadway; Z: Res, specific plan, planned com., ag; GP: Res, natural open space

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Flood Plain/Flooding; Geologic/Seismic; Noise; Toxic/Hazardous; Traffic/Circulation; Water Quality; Wetland/Riparian; Landuse; Other Issues

Reviewing Agencies Resources Agency; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Wildlife, Region 5; Native American Heritage Commission; Public Utilities Commission; California Highway Patrol; Caltrans, District 12; Air Resources Board, Transportation Projects; Regional Water Quality Control Board, Region 8

Date Received 05/02/2017 **Start of Review** 05/02/2017 **End of Review** 05/31/2017

Note: Blanks in data fields result from insufficient information provided by lead agency.

Ken Crowder

1200 Grand Canyon Way

Brea, CA 92821

lcrowder@roadrunner.com

Comments: My wife and I have lived at this address since 1981.

Point 1:

The traffic on Brea Canyon Road flows reasonably well except when the hwy 57 North is backed up from the merging with hwy 60 and traffic through Diamond Bar is heavy and slowed by signals.

Since the widening of Brea Canyon Road will not change the flow beyond the county line, it is a bad idea to make it a four lane parking lot. The only reason to widen it is if there is pressure by developers to do so for future development. We would object strenuously to that.

Point 2:

The only time a street is widened it permits more traffic to flow. It seldom results in less traffic and a better flow of traffic. Intent has little impact on reality.

Widening the road will encourage more traffic going to Diamond Bar to use the canyon as an alternate to hwy 57. This will cause heavier use and maintenance costs to Brea Blvd and other feeder streets. The related costs as a result of expansion of Harbor Blvd to go over to hwy 60 should be considered.

Point 3:

There will likely be additional signals required such as at the Tonner Canyon junction. Additional traffic will require additional traffic enforcement. That will be additional cost in the future.

Ken Crowder

1200 Grand Canyon Way

Brea, CA 92821

lcrowder@roadrunner.com

Comments: My wife and I have lived at this address since 1981.

Predators such as coyotes and raccoons rely on the rodents and small animals that live in the hills surrounding the canyon. During the drought we had many more visits in the neighborhood looking for pets as food. Golden eagles and red tail hawks have been seen in the area and feed off the same small rodents that live in the canyon.

Bubonic plague is discovered in the ground squirrels living in the canyon. It is discovered every few years there. The predators are the only reason the numbers of ground squirrels and other rodents are controlled.

Insects are the primary food for many small birds. The blue bird, found in other parts of Orange County, is seldom seen in the canyon due to lack of insects. As oil pump activity diminishes we have a chance that predators and insectivore birds will return in greater numbers.

A four lane road and the resulting increase in traffic will assure that never happens. Animals don't normally feed near traffic.

Protected birds and other animals may not live in the canyon. But it is the feed store for many.

James Chuang
Senior Environmental Specialist

Southern California Gas Company
Sempra Energy utilities
GT17E2
555 Fifth Street
Los Angeles, Ca. 90013
Tel: 213-244-5817
Fax: 323 518 2324

05/26/2017

Mr. Kevin Shannon
Contract Planner
County of Orange Development Services/Planning
300 N. Flower Street
Santa Ana, CA 92703

Re: **Brea Canyon Road Widening Project**

Dear Mr. Shannon:

Southern California Gas Company (SoCalGas) appreciates the opportunity to review and respond to the Brea Canyon Road Widening Project. SoCalGas understands that the proposed project would involve the widening of approximately 1.75-mile segment of Brea Boulevard/Brea Canyon Road from two lanes to four. The project is intended to address congestion during the AM and PM peak hours (from LOS F to LOS A). The proposed project also includes realigning five existing curves within the project limits, and installing a new traffic signal at the intersection of Brea Canyon Road and Tonner Canyon Road. Widening and safety improvements would also require replacing three bridges over Brea Creek, improving and extending various drainage crossings and utility bank crossings, relocating utilities and oil field-related equipment, replacing the existing traffic signal at Brea Canyon Road and Canyon Country Road, and a substantial roadway slope cut of up to 50 feet or more in height, requiring a high retaining wall. We respectfully request that the following comments be incorporated in the administrative record.

- SoCalGas has several medium pressure distribution pipelines within the public right-of-way of several City of Brea streets within the designated Project Area. SoCalGas recommends that the project proponent call Underground Service Alert at 811 at least two business days prior to performing any excavation work for the proposed project. Underground Service Alert will coordinate with SoCalGas and other utility owners in the area to mark the locations of buried utility-owned lines.
- Should it be determined that the proposed project may require SoCalGas to abandon and/or relocate or otherwise modify any portion of its existing natural gas lines, SoCalGas respectfully requests that the County coordinate with us by calling (800) 427-2000 to follow-up on this matter.

Once again, we appreciate the opportunity to comment on the Brea Canyon Road Widening Project. If you have any questions, please feel free to contact me at (213) 244-5817 or envreview@semprautilities.com.

Sincerely,

James Chuang
Senior Environmental Specialist
Southern California Gas Company

cc. Abagale Taylor, SoCalGas

BREA CANYON ROAD WIDENING PROJECT
DRAFT EIR PUBLIC SCOPING MEETING COMMENT CARD

Please hand in, mail, or e-mail comments to
Kevin.Shannon@ocpw.ocgov.com by June 2, 2017

Name: DWIGHT MANLEY

Organization (if any):

Address: 916 NEWHALL TERRACE

City, State, Zip: BREA CA 92821

Phone (optional): 714-990-8748

E-mail (optional): Dmanleyinc@aol.com

Comments:

1 - TURN OUTS for wrecks / ETC.
8 shoulder

right TURN only @ central?

~~DOES CALTRANS HAVE A POLICY ON~~

SETTLERS MONUMENT

LIGHTING? ?

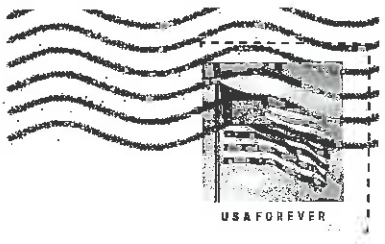
BREA CANYON ROAD WIDENING PROJECT
DRAFT EIR PUBLIC SCOPING MEETING COMMENT CARD

Please hand in, mail, or e-mail comments to
Kevin.Shannon@ocpw.ocgov.com by June 2, 2017

Name: Elaine Maloney
Organization (if any):
Address: 855 N. Brea Blvd Apt 334
City, State, Zip: Brea, Calif 92821
Phone (optional):
E-mail (optional):

Comments: Donot agree with any construction on road in brea pass. It would clearly become a second freeway! Unsafe and unneeded !!

SANTA ANA CA 926
03 JUN 2017 PM 1 L



RECD JUN 05 2017

OC Development Services/Planning
Attn: Kevin Shannon
300 N. Flower Street
Santa Ana, CA 92703

Comments (continued):

What happens to the Lovely marker of Santa Military marker we have on that road?

Will oil lines be removed by the oil company.

Will there be cameras & new signals?

Soil oil?

BREA CANYON ROAD WIDENING PROJECT
DRAFT EIR PUBLIC SCOPING MEETING COMMENT CARD

Please hand in, mail, or e-mail comments to
Kevin.Shannon@ocpw.ocgov.com by June 2, 2017

Name: Gilberta (Jean) Miller
Organization (if any):
Address: 855 N. Brea Blvd., Apt. 214
City, State, Zip: Brea, CA 92821
Phone (optional): 714-269-4777
E-mail (optional):

Comments: Cross walks @ State College St / Central and cross street N. Brea Blvd. ---

Senior nearly hit, while in cross walk with wheelchair more than once, twice or three times! What will be done on this subject.

BREA CANYON ROAD WIDENING PROJECT
DRAFT EIR PUBLIC SCOPING MEETING COMMENT CARD

Please hand in, mail, or e-mail comments to
Kevin.Shannon@ocpw.ocgov.com by June 2, 2017

Name: Patricia Naylor
Organization (if any):
Address: 855 N Brea Blvd #217
City, State, Zip: Brea CA 92821
Phone (optional): 714-257-9615
E-mail (optional):

Comments:

Comments (continued):

Consider a traffic signal @ (L) turn ups from Central + Brea Blvd.

SANTA ANA CA 926
03 JUN 2017 PM 2 L
RECD JUN 05 2017

OC Development Services/Planning
Attn: Kevin Shannon
300 N. Flower Street
Santa Ana, CA 92703

BREA CANYON ROAD WIDENING PROJECT
DRAFT EIR PUBLIC SCOPING MEETING COMMENT CARD

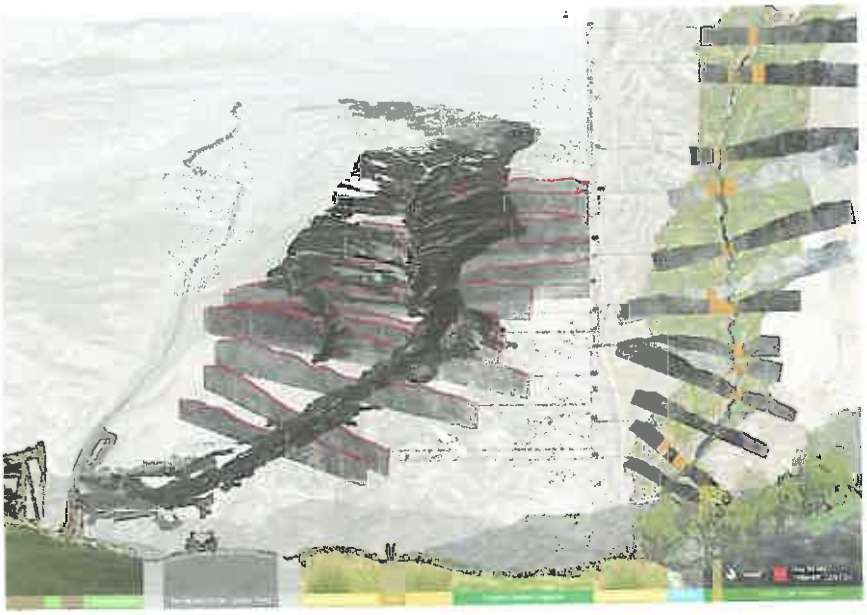
Please hand in, mail, or e-mail comments to
Kevin.Shannon@ocpw.ocgov.com by June 2, 2017

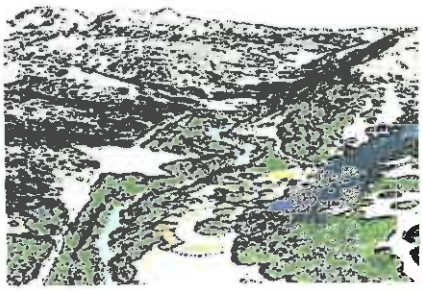
Name: SUSAN FUJIOKA
Organization (if any):
Address: 1017 SHADOW CANYON RD
City, State, Zip: BREA CA 92821
Phone (optional):
E-mail (optional): sfujioka@sbcglobal.net

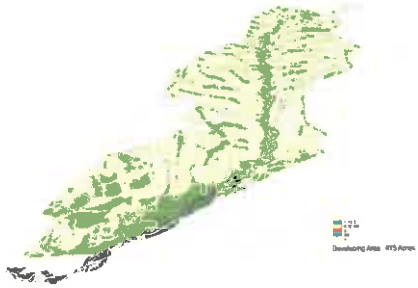
Comments: MAX WEIGHT needs to be set on Brea Blvd
move utility lines to underground due to fire hazard
3 lanes? 1 southbound 2 northbound
separate marked/blocked lane for right turn on
Canyon Country & NO U TURN at Canyon Country

2014

Tonner Canyon
Recreation and Facility Conceptual Plan



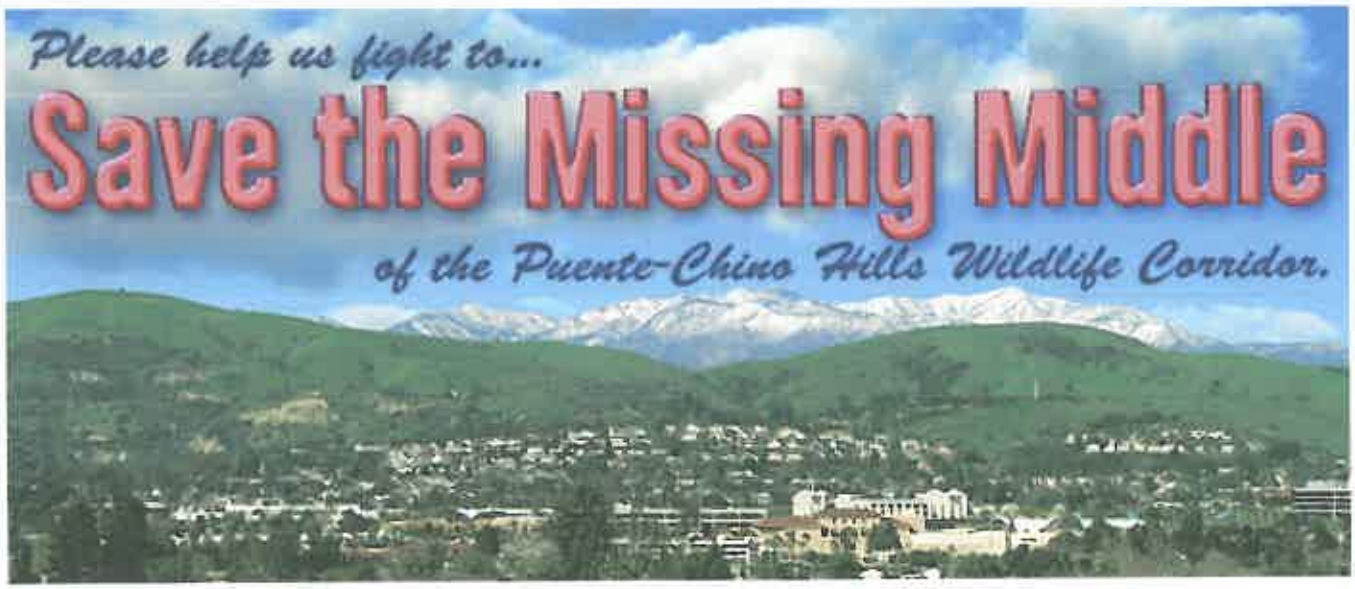




Located on over 2,500 acres, Tonner Canyon is a natural canyon with a year-round creek, native vegetation and abundant wildlife located near the geographic center of urbanized Southern California. For over fifty years it was the site of a well-known Boy Scout facility but was purchased by the City of Industry. SWA prepared a master plan for the property that proposes continuation of the site's use for camping and other outdoor activity but expands the users to include many others, from disadvantaged innercity youth to corporate conferences.

The site will accommodate both day- and overnight-use in a variety of settings from creek-side campgrounds to a hillside conference center with meeting rooms and comfortable, climate-controlled sleeping rooms. The master plan emphasizes the repair and renovation of the site's natural systems, especially the vegetation and natural creek.

Location
Los Angeles, Orange and San Bernardino Counties, California
Client
Burke, Williams & Sorensen, LLP
SWA Scope
Master Planning
Size
2,500 acres - 1,012 hectares



CITY OF INDUSTRY - THE PLAN

Their 275,000 acre-foot reservoir as delineated on a map by Boyle Engineering (88 billion gallons) will cover 65 % of the acreage of Tonner Canyon including all of the riparian area and much of the canyon slopes which are covered by walnut woodland, oak woodland and coastal sage scrub habitat. The canyon would need to be bulldozed since decomposing organic material is not allowed in this kind of reservoir

City of Industry's Reservoir Plans

A 275,000 acre-foot reservoir will require a 400 foot high dam to be built immediately upstream of the City of Brea and within yards of the Whittier-Elsinore Fault, a major seismic feature in southern California. If this reservoir were built and if it ever failed, we would be picking up a large swath of Orange County from the beaches down to Mexico.

A geologic map of Tonner Canyon shows that both sides of the canyon, including the dam sites, are covered with deposits designated as seismically induced landslides, further evidence of both the earthquake potential and the inherent instability of Puente Hills slopes.

One of the factors in the determination not to build the Auburn Dam in Northern California was the occurrence of reservoir-induced earthquakes at Oroville following construction of the dam there. These earthquakes were noteworthy because Oroville is situated in a region of low seismicity. Reservoir-induced earthquakes were investigated after that earthquake by USGS and determined to be a valid hazard associated with building large reservoirs near strike slip faults. The Whittier-Elsinore Fault is a highly capable strike slip fault which already poses a substantial earthquake threat to the urbanized area on top of it.

In order to take full advantage of the on going power shortage and rate volatility facing California,

Industry's most likely power plant scheme would involve a pumpback concept between two onsite reservoirs. Building two small reservoirs instead of one large one would reduce the storage volume (only one reservoir could be full for a pumpback option) to less than 15% of the storage, substantially defeating the purpose of reservoir construction.

The reservoir will be one-third the size of Diamond Valley Lake, recently built by MWD at a cost of more than $2 billion and which was sold to MWD customers as the ultimate reservoir needed to assure reliable storage capacity south of the Tehachapis. Industry's reservoir, which involves much greater construction problems, and less economy of scale, would likely cost more than $1 billion.

Inland Valley Daily Bulletin (http://www.dailybulletin.com)

Industry negotiating over Tres Hermanos Ranch with mysterious company run by San Diego developer

City of Industry, which is trying to buy 2,500-acre parcel, talking with new water and power company managed by San Diego developer

By Jason Henry, San Gabriel Valley Tribune

and Steve Scauzillo, San Gabriel Valley Tribune

Wednesday, April 12, 2017

City of industry >> A newly formed water and power company managed by a San Diego housing developer is negotiating behind the scenes with the City of Industry on the future of 2,500 acres of undeveloped rolling hills near the borders of Los Angeles, Orange and San Bernardino counties.

The business-centric City of Industry has been aggressively trying to regain control of the historic Tres Hermanos Ranch in Diamond Bar and Chino Hills, one of the largest remaining pieces of vacant private land in the region. The city lost access to the land during the demise of local redevelopment agencies five years ago.

Officials in the wealthy San Gabriel Valley city of about 200 residents claim they want to preserve the land for a public purpose. But the city's unwillingness to elaborate on what that purpose would be has raised suspicions among local leaders and environmentalists that the property could be turned into housing tracts or a power-generating facility.

The tract of cow pastures surrounded by hills lies more than three miles outside of Industry's city limits. The land is divided between Diamond Bar in the north and Chino Hills in the south.

Industry offered $100 million for Tres Hermanos earlier this year, but a county-appointed oversight board postponed voting on the sale in January after members demanded to know how the city plans to use the land. City officials have scoffed at the request, saying state law doesn't require them to share anything.

Questions raised by negotiations with LLC

A closed session meeting on Thursday has provided new insights — and questions — about what those plans might be.

Industry's City Council is negotiating "price and term of payment" for Tres Hermanos with a limited liability corporation formed roughly a year ago. The company, San Gabriel Valley Water and Power LLC,

is managed by Ambient Communities, a San Diego-based residential and commercial developer, public records showed.

Ambient has built hundreds of homes in Temecula and San Luis Obispo in recent years, according to its website.

Conservationists with Save the Tres Hermanos Ranch have said they would support any plan that preserves most of the land for open space, but the inclusion of a housing developer has them concerned they're being misled, according to Jim Gallagher, a member of the group.

Wade Hall, principal at Ambient and a project manager for San Gabriel Valley Water and Power, said housing is not part of the city's plans for Tres Hermanos.

"Even though we're housing and commercial guys, there's no intention to do that," said Wade Hall, a principal at Ambient and a project manager for San Gabriel Valley Water and Power. "The reason we're managers of that entity is because we're used to managing entitlement, large projects and large budgets and working with consultants and financing."

He would not provide any details about what has been discussed, but added the name of the LLC "implies what thoughts are being considered."

For decades, Industry officials have contemplated various public utility projects for Tres Hermanos, most recently a proposal that would have flooded the plains and hills for a series of reservoirs stretching south to Brea. Other proposals have included a hydroelectric facility and solar farms. Last year, Industry's City Council moved to investigate expanding their utility to meet the needs of the thousands of businesses within the city limits.

The Cordoba Corp., a consultant hired to run the public utility, is also being paid to investigate uses for Tres Hermanos.

Who's behind San Gabriel Valley Water and Power?

Hall would not disclose the members of the LLC, saying only they are "potential investors" who brought Ambient in to manage the LLC last year.

"I don't think that's public knowledge, or will be," he said.

Industry City Manager Paul Philips refused to comment on the San Gabriel Valley Water and Power LLC, its formation or the negotiations.

"Obviously, we have an obligation to figure out what we're doing," he said.

Neighbors, officials frustrated with Industry's actions

Industry's secretive nature has become frustrating for neighboring communities. Chino Hills City Manager Konradt Bartlam said he has never heard of Ambient or San Gabriel Valley Water and Power. Industry's council agenda abbreviated the LLC to "SGVWP LLC" instead of using the full legal name and provided only parcel numbers for Tres Hermanos, making it harder for an individual to know what

the closed session item was about.

"They don't own the property ... so how can they negotiate with these entities," Bartlam said, adding that he feels Chino Hills is being kept in the dark. A large portion of Tres Hermanos is within Chino Hill's city limits.

Bartlam isn't the only one frustrated.

Santos Kreimann, the chair of the oversight board tasked with selling Tres Hermanos, was unaware of the negotiations between Industry and the Ambient-managed company. He said his responsibility continues to be to find the "highest and best use" for the land.

"The concern I have is that the Successor Agency staff and the city have not been forthcoming with any information," Kreimann said.

The interest from these outside investors and a previous $101 million offer by a real estate developer could make three potential bidders for the property, Kreimann said. That may mean the oversight board should consider putting the land on the public market to bring in the highest value, he said.

If that happened, the land would almost certainly become housing, as developers would pay much more than what Industry is offering.

"I certainly think it is an option we have to consider as a group," Kreimann said.

Researcher Ian Wheeler contributed to this report.

URL: http://www.dailybulletin.com/government-and-politics/20170412/industry-negotiating-over-tres-hermanos-ranch-with-mysterious-company-run-by-san-diego-developer

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BREA CANYON ROAD WIDENING PROJECT
DRAFT EIR PUBLIC SCOPING MEETING COMMENT CARD

Please hand in, mail, or e-mail comments to
Kevin.Shannon@ocpw.ocgov.com by June 2, 2017

Name: Sean Thomann
Organization (if any):
Address: 1180 orangewood Dr
City, State, Zip:
Phone (optional):
E-mail (optional):

Comments: waste of time and money. spend the 40 million on the 57 freeway. Does NOT help Brea at All. After the freeway is fix then work on the Canyon.

BREA CANYON ROAD WIDENING PROJECT
DRAFT EIR PUBLIC SCOPING MEETING COMMENT CARD

Please hand in, mail, or e-mail comments to
Kevin.Shannon@ocpw.ocgov.com by June 2, 2017

Name: Ralph Richardson
Organization (if any):
Address: 1175 Orangewood
City, State, Zip: Brea. CA. 92821
Phone (optional):
E-mail (optional): loudhouse6@hotmail.com

Comments: The amount of oil Co. toxic chemicals in the ground is unknown, it is thought to be dangerous as there were no standards for disposal for years/decades. If toxins are found this project will cost many many times the estimate who will pay?

BREA CANYON ROAD WIDENING PROJECT
DRAFT EIR PUBLIC SCOPING MEETING COMMENT CARD

Please hand in, mail, or e-mail comments to
Kevin.Shannon@ocpw.ocgov.com by June 2, 2017

Name: DANIELLE CRAHEN
Organization (if any):
Address: 859 EVENING CANYON RD
City, State, Zip: BREA CA 92821
Phone (optional):
E-mail (optional):

Comments: WHAT ARE THE PLANS FOR NOISE ABATEMENT FOR THE HOMES ON THE EAST SIDE OF BREA BLVD (CANYON RD) — I CURRENTLY CAN SEE BREA BLVD (SHORT WALL) WOULD YOU BUILD UP THE WALL & KILL MY VIEW?

BREA CANYON ROAD WIDENING PROJECT
DRAFT EIR PUBLIC SCOPING MEETING COMMENT CARD

Please hand in, mail, or e-mail comments to
Kevin.Shannon@ocpw.ocgov.com by June 2, 2017

Name: Deana Provencher
Organization (if any):
Address: 1030 Mariposa Dr
City, State, Zip: Brea, Ca 92821
Phone (optional):
E-mail (optional):

Comments: We need this. Safety is #1 and this will help
Presentation was very good, well informed
Thank you

BREA CANYON ROAD WIDENING PROJECT
DRAFT EIR PUBLIC SCOPING MEETING COMMENT CARD

Please hand in, mail, or e-mail comments to
Kevin.Shannon@ocpw.ocgov.com by June 2, 2017

Name: Claire Schlotterbeck
Organization (if any): Hills for Everyone
Address: PO Box 9835
City, State, Zip: Brea, CA 92822-1835
Phone (optional):
E-mail (optional):

Comments: This is a critical juncture for wildlife movement under Tonner Canyon Bridge. Impacts must be considered, studied, mitigated.

Lighting will have detrimental impacts to wildlife movement

Noise impacts must be studied for impacts to wildlife movement.

BREA CANYON ROAD WIDENING PROJECT
DRAFT EIR PUBLIC SCOPING MEETING COMMENT CARD

Please hand in, mail, or e-mail comments to
Kevin.Shannon@ocpw.ocgov.com by June 2, 2017

Name: Mike Laybourn
Organization (if any):
Address:
City, State, Zip:
Phone (optional):
E-mail (optional): mike.laybourn@gmail.com

Comments: Please add bike lane to project

Also, please work with LA County to extend bike lane between the Orange County line northward to intersection of Brea Canyon Road & South Diamond Bar Boulevard.

Thank You

BREA CANYON ROAD WIDENING PROJECT
DRAFT EIR PUBLIC SCOPING MEETING COMMENT CARD

Please hand in, mail, or e-mail comments to
Kevin.Shannon@ocpw.ocgov.com by June 2, 2017

Name: Susan Perlson
Organization (if any): ~~-0-~~
Address: 1184 Grand Canyon
City, State, Zip: Brea, CA 92821
Phone (optional): 714-529-7547
E-mail (optional): perlsons@sbcglobal.net

Comments: Please address the traffic that cuts through Grand Canyon as a shortcut to Brea blvd. Drivers race through residential street.

Safety with oil lines/wells are very important to ~~Carl's~~ environment, air, public safety. Please make sure that oil/gas equipment meets safety standards

Comments (continued):

of 2017.

Please make bike trails as safe as possible.

Please address the safety from 4 lanes to 2 lanes at the county line to limit traffic accidents + related problems.

Might be helpful to document the # of accidents and fatalities on Rd to stress public safety.

Thank you!

PLACE POSTAGE HERE

OC Development Services/Planning
Attn: Kevin Shannon
300 N. Flower Street
Santa Ana, CA 92703

BREA CANYON ROAD WIDENING PROJECT
DRAFT EIR PUBLIC SCOPING MEETING COMMENT CARD

Please hand in, mail, or e-mail comments to
Kevin.Shannon@ocpw.ocgov.com by June 2, 2017

Name: Ralph Richardson
Organization (if any):
Address: 1175 Orangewood
City, State, Zip: Brea, CA. 92821
Phone (optional): 714 757 4106
E-mail (optional): ~~Food~~ loudhouse6@hotmail.com

Comments: This only helps La County residents - at orange Countys ex-pense. It also appears you (OC.gov.) are subsidizing future land develop-ment at taxpayers expense. The Brea landfill is closing in less than 4 years - so that is NO excuse either. (over)

Comments (continued):

You are claiming traffic safety as well - but there are far less expensive ways to mitigate any perceived Danger.

The 57 freeway will not handle any increase any way - it is far over capacity

This will create excessive noise and smog emissions. This will be an eyesore. This will damage water shed.

The problem is the 57/60 interchange - that is where the bottle neck is. We in Brea are afflicted by the backup.

PLACE POSTAGE HERE

OC Development Services/Planning
Attn: Kevin Shannon
300 N. Flower Street
Santa Ana, CA 92703

BREA CANYON ROAD WIDENING PROJECT
DRAFT EIR PUBLIC SCOPING MEETING COMMENT CARD

Please hand in, mail, or e-mail comments to
Kevin.Shannon@ocpw.ocgov.com by June 2, 2017

Name: DIANA ENGLER
Organization (if any):
Address: 405 SAND CANYON Way
City, State, Zip: BREA CA 92821
Phone (optional):
E-mail (optional): didieng@sbcglobal.net

Comments: Where will Retaining Walls be placed?
Signal Replacement at Canyon Country/Brea
with WHAT ??? There are hundreds
of residences that need access in & out.

BREA CANYON ROAD WIDENING PROJECT
DRAFT EIR PUBLIC SCOPING MEETING COMMENT CARD

Please hand in, mail, or e-mail comments to
Kevin.Shannon@ocpw.ocgov.com by June 2, 2017

Name: VALDES VALENTI
Organization (if any):
Address: 855 No. Brea Blvd
City, State, Zip: BREA, CA 92821
Phone (optional):
E-mail (optional):

Comments: would be chaotic - against it

We can barely cross the street as it so dangerous?

BREA CANYON ROAD WIDENING PROJECT
DRAFT EIR PUBLIC SCOPING MEETING COMMENT CARD

Please hand in, mail, or e-mail comments to
Kevin.Shannon@ocpw.ocgov.com by June 2, 2017

Name: Jane Dage
Organization (if any):
Address: 855 N Brea Blvd. #127
City, State, Zip: Brea, Ca 92821
Phone (optional): 951-265-6700
E-mail (optional):

Comments: NOISE From Traffic is already extreme. Freeway should be widen? No Police activity on Brea Blvd, constant speeding motorcycles 80-To 100 miles a hr. - speed bumps maybe ??? Intersection Brea/State college is scary for Pedestrians. Heavy equipment Parking ???

APPENDIX C
2019 UPDATED NOTICE OF PREPARATION (NOP), INITIAL STUDY, AND DISTRIBUTION LIST

OC PublicWorks
Integrity, Accountability, Service, Trust
Shane L. Silsby, Director

NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT AND NOTICE OF A PUBLIC SCOPING MEETING

DATE: May 17, 2019
SUBJECT: Notice of Preparation of a Draft Environmental Impact Report (EIR No. 628) and Public Scoping Meeting
PROJECT: Brea Boulevard/Brea Canyon Road Widening Project (IP 17-046) SCH # 2017051005
APPLICANT: County of Orange, OC Public Works

Public Scoping Meeting: The County will host a public scoping meeting to be held as noted below to provide an update to the project and to solicit comments relative to the content of the information to be analyzed in the Draft Environmental Impact Report (Draft EIR).

Date: May 29, 2019
Time: 6:00 p.m. to 7:30 p.m.
Location: Mariposa Elementary School Cafeteria
1111 West Mariposa Drive
Brea, CA 92821
(see attached map)

POSTED
MAY 20 2019
ORANGE COUNTY CLERK-RECORDER DEPARTMENT
BY: _____ DEPUTY

Due to the extended period of time that has elapsed and updated project scope since the Notice of Preparation (NOP) of a draft EIR was distributed on May 2, 2017 and public scoping meeting held on May 24, 2017, an updated NOP and Initial Study has been prepared and another public scoping meeting will be held.

Public input regarding the appropriate topics for analysis to be included within the EIR is being sought. In order for your concerns to be incorporated into the Draft EIR, we need to know your views as to the scope and content of the environmental information in connection with the Brea Canyon Road Widening Project (Project). Pursuant to CEQA Guidelines Section 15082(b), all comments must be received as soon as possible but ***not later than 30 days after receipt of this notice.*** The comment period for this Notice is May 20, 2019 to June 19, 2019. You may provide your comments at the Scoping Meeting or by submitting them in writing to the address at the bottom of this Notice.

Under CEQA Guidelines Section 15060(d), the County of Orange, as lead agency, has determined that an Draft EIR would be required. Under CEQA Guidelines Section 15063(c)(3), the Initial Study prepared for the Project will assist in focusing the Draft EIR on the effects determined to be significant. Upon completion of the Draft EIR, that document will be made available for public review and comment. There will be public notice regarding its availability at that time. Following the public review period for the Draft EIR, responses to all public and public agency comments received will be prepared and the project will be scheduled for a noticed public hearing before the Orange County Planning Commission.

Project Description and Location: The OCPW has identified the need to widen Brea Boulevard/Brea Canyon Road (hereafter referred to as Brea Canyon Road) consistent with the Orange County Master Plan of Arterial Highways (MPAH). The Brea Canyon Road Widening Project (Project) is located partially in the City of Brea, from Canyondale Drive to the north City limit, and partially in unincorporated Orange County, from the north City limit to approximately 1,200 feet northeast of Tonner Canyon Road, a total

length of approximately 7,600 linear feet or 1.4 miles. In addition, approximately 1,100 feet of Brea Canyon Channel from 600 feet north (upstream) of Central Avenue to 1,700 feet north (upstream) of Central Avenue within the City of Brea.
Refer to the attached figures.

Brea Canyon Road would be widened from two to four lanes (two lanes each direction) with 11 foot minimum width lanes, shoulders that would vary from 6-foot to 10-foot wide that could serve as bike lanes, and a raised median that varies from 12- foot to 14-foot or a 6-foot wide median with a concrete barrier.

The Project is intended to address safety by improving the design of existing curves within the Project and reducing the potential for motorist conflicts. Additionally, the Project is intended to address traffic congestion during the A.M and P.M. peak hours and is expected to enhance the Level of Service (LOS) from an existing LOS F to LOS A, substantially improving traffic flow through Brea Canyon Road. This would be accomplished by widening Brea Canyon Road, installing a new traffic signal at the intersection of Brea Canyon Road and Tonner Canyon Road, and installing a new traffic signal approximately 1,200 feet north of Canyon Country Road to provide a safe left turn on Brea Boulevard for the oil field operator.

Widening and safety improvements of the roadway would also require replacing three bridges over Brea Canyon Channel, improvements to Brea Canyon Channel, improving and extending various drainage crossings and utility bank crossings, relocating utilities and oilfield-related equipment (e.g., power transmission poles, oil lines, oil wells, telephone duct banks, etc.), replacing the existing traffic signal at Brea Canyon Road and Canyon Country Road, and multiple retaining walls, the highest of which is over 60 feet. Some right-of-way (R/W) acquisition and driveway access point modification (e.g., driveway relocation or reconstruction) would also be required.

Construction is expected to last approximately 4.5 years and is anticipated to begin in the year 2020.

The Notice of Preparation with Initial Study IP 17-046 is available for review on the County's website: http://www.ocpublicworks.com/ds/planning/projects/4th_district/brea_canyon_road_widening_project

If you have any questions or need additional information, please contact Cindy Salazar at (714) 667-8870. Submit written comments to the following email address: Cindy.Salazar@ocpw.ocgov.com. The mailing address is OC Development Services/Planning, 300 N. Flower Street, Santa Ana, CA 92703.

Submitted by: _____
Name: Cindy Salazar, Senior Planner
OC Public Works, OC Development Services/Planning

Attachment: Location Maps

POSTED

MAY 20 2019

ORANGE COUNTY CLERK-RECORDER DEPARTMENT

BY: _____ DEPUTY

Mariposa Elementary School

POSTED

MAY 20 2019

ORANGE COUNTY CLERK-RECORDER DEPARTMENT

BY: NA DEPUTY

Brea Boulevard/Brea Canyon Road Widening Project
Initial Study (IP 17-046) SCH # 2017051005

ENVIRONMENTAL CHECKLIST

1. **Project Title:** Brea Boulevard/Brea Canyon Road Widening Project

2. **Lead Agency Name and Address:**

Orange County Public Works Department/OC Development Services
300 N. Flower Street, 1st Floor
Santa Ana, CA 92703-4098

3. **Contact Person and Phone Number:** Austin Morgan, P.E. (714) 647-3981

4. **Project Location:** An approximately 1.4-mile segment of Brea Boulevard/Brea Canyon Road, between Canyondale Drive in the City of Brea to approximately 1,200 feet northeast of Tonner Canyon Road within unincorporated Orange County. In addition, approximately 1,100 feet of Brea Canyon Channel from 600 feet north (upstream) of Central Avenue to 1,700 feet north (upstream) of Central Avenue within the City of Brea.

Refer to Figure 1, Regional Map, and Figure 2, Vicinity Map.

5. **Project Sponsor's Name and Address:**

Orange County Public Works Department/OC Infrastructure Programs
300 N. Flower Street
Santa Ana, CA 92703-5000

6. **General Plan Designation:** City of Brea: Low Density Residential, High Density Residential, Hillside Residential, Public Facilities, and Natural Open Space; County of Orange: 1B (Suburban Residential).

7. **Zoning:** City of Brea: R-1-H (Single-Family Residential-Hillside), R-2 and R-3 (Multiple Family), FP-1 (Public Facilities), and THSP (Tonner Hills Specific Plan); County of Orange: A1 (O) (General Agriculture with Oil Production Overlay) and PC (O) (Planned Community with Oil Production Overlay).

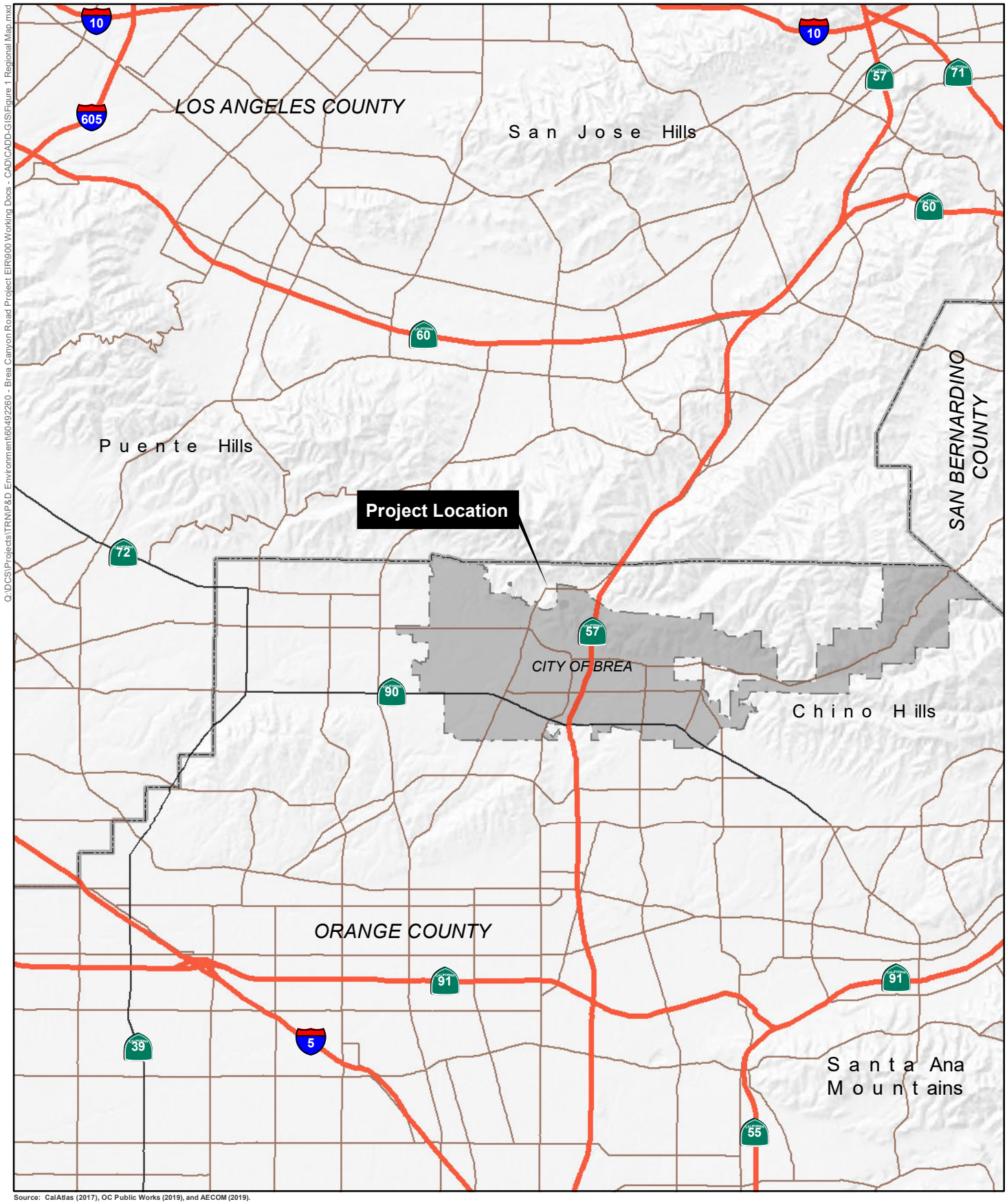
8. **Description of Project:** The Orange County Public Works Department (OCPW) has identified the need to widen Brea Boulevard/Brea Canyon Road (hereafter referred to as Brea Canyon Road) consistent with the Orange County Master Plan of Arterial Highways (MPAH). The Brea Canyon Road Widening Project (Project) is located partially in the City of Brea, from Canyondale Drive to the north City limit, and partially in unincorporated Orange County, from the north City limit to approximately 1,200 feet northeast of Tonner Canyon Road, a total length of approximately 7,600 linear feet or 1.4 miles (road limits). To facilitate the widening, improvements to Brea Canyon Channel located within the City of Brea, from approximately 600 feet upstream of Central Avenue to 1,700 feet upstream of Central Avenue (flood limits) are necessary; refer to Figure 1, Regional Map, and Figure 2, Vicinity Map.

The Project is intended to address safety by improving the design of existing curves within the road limits and reducing the potential for motorist conflicts. Additionally, the Project is intended to address traffic congestion during the A.M and P.M. peak hours and is expected to enhance the Level of Service (LOS) from an existing LOS F to LOS A, substantially improving traffic flow

through Brea Canyon Road. This would be accomplished by widening Brea Canyon Road from two to four lanes (two lanes each direction, divided by median barrier/raised median), installing a new traffic signal at the intersection of Brea Canyon Road and Tonner Canyon Road, and installing a new traffic signal approximately 1,200 feet north of Canyon Country Road to provide a safe left turn on Brea Boulevard for the oil field operator.

Widening and safety improvements of the roadway would also require replacing three bridges over Brea Canyon Channel, improving a portion of Brea Canyon Channel, improving and extending various drainage crossings and utility bank crossings, relocating utilities and oilfield-related equipment (e.g., power transmission poles, oil lines, oil wells, telephone duct banks, etc.), replacing the existing traffic signal at Brea Canyon Road and Canyon Country Road, and multiple retaining walls, the highest of which is over 60 feet. Some right-of-way (R/W) acquisition and driveway access point modification (e.g., driveway relocation or reconstruction) would also be required.

The Project presented within this Initial Study is an update to the Project previously defined in a Notice of Preparation (NOP) of a draft Environmental Impact Report (EIR) on May 2, 2017 and public scoping meeting held on May 24, 2017. Due to the extended period of time that has elapsed and the updated Project scope, an updated NOP and Initial Study has been prepared and another public scoping meeting will be held on May 29, 2019.



Source: CalAtlas (2017), OC Public Works (2019), and AECOM (2019).

Scale 1 : 126720
1" = 2 miles

0 1 2 4 Miles

Figure 1
Regional Map

Eagle Aerial Imaging (2015), OC Public Works (2019), and AECOM (2019).

Scale 1 : 12,000
1" = 1,000 feet

0 500 1,000 2,000 3,000 Feet

Figure 2
Vicinity Map

Brea Boulevard/Brea Canyon Road Widening Project

EXISTING CONDITIONS

Brea Canyon Road is a 30-foot-wide, two-lane, undivided highway (one lane in each direction) with portions of the roadway having no curb or gutter, and unpaved, earthen shoulders. Other portions of the roadway are improved with curb, gutter, and sidewalk. The posted speed limit is 55 miles per hour (MPH) in the unincorporated portion of the project limits, and 45 MPH in the City of Brea at the southern end of the road limits. Brea Canyon Road has essentially remained unchanged since the roadway was realigned to its present configuration between 1928 and 1930. The existing R/W width varies between 60 to 100 feet.

There are approximately five existing horizontal curves (i.e., circular curve transitions between two tangent strips of roadway that allow vehicles to negotiate turns at design speed) within the road limits. All but one of the five horizontal curves have an existing radius curve of 1,000 feet that allow for a comfortable horizontal curve speed of 50 MPH. The one exception has a radius curve of 700 feet and has been tightly aligned in between Brea Canyon Channel to the north and a very tall and steep hill to the south.

There are three bridges crossing Brea Canyon Channel within the road limits: a double span bridge culvert constructed circa 1929 (Bridge 1 [#55C0121]) and two reinforced concrete bridges constructed circa 1930 (Bridges 2 [#55C0122] and 3 [#55C0123]). In addition to the three bridges there are approximately thirteen existing culvert crossings (for drainage or oil lines or both).

Brea Canyon Channel downstream of the flood limits is a 40-foot-wide, 13.5-foot-tall reinforced concrete rectangular channel that meets the current Orange County Flood Control District (OCFCD) flood protection criteria. The existing condition of the flood limits slated for improvement consists of a trapezoidal riprap (lined with rock to prevent erosion of slopes) lined channel with a bottom width of 30 feet and 1.5:1 (horizontal: vertical) side slopes. A transition currently exists between the concrete rectangular channel and trapezoidal riprap lined channel.

The following land uses surround the road and flood limits:

- North of the road limits is generally oil field and natural open space within unincorporated Orange County. Much of this area is property owned by AERA and Brea Hills LLC.
- East of the road limits is State Route (SR) 57 and Tonner Canyon.
- South and west of the road and flood limits is the City of Brea and associated residential areas, with some general commercial and public facility land uses. Immediately south of the middle stretch of the road limits are some steep slopes containing additional oil field activity and the Humble Reservoir.

PROJECT PURPOSE AND NEED

Brea Canyon Road experiences traffic congestion during the A.M and P.M. peak hours, operating at an unacceptable LOS F. The Project would widen the existing roadway, enhancing the existing LOS F to LOS A, substantially improving traffic flow through the Brea Canyon Road area.

There are also existing safety issues along Brea Canyon Road within the road limits. The existing turn with a radius curve of 700 feet is considered to be very sharp and unsafe for the posted (i.e., operational) speed of 55 MPH. Additionally, existing motorist conflicts occur when vehicles attempt to turn from private driveways across the road, and at the unsignalized intersection of Brea Canyon Road and Tonner Canyon Road. The Project would address existing safety issues by slightly flattening (i.e., increasing the radius) the existing sharp curve (as well as improving the design of the other existing curves within the road limits) and provide a superelevation (i.e., angle of roadway banking within the turn), installing a median barrier or raised median within the road limits, a new traffic signal at the Tonner Canyon Road and Brea

Canyon Road Intersection, and install a new traffic signal approximately 1,200 feet north of Canyon Country Road.

The Project can improve bicycle access/safety by providing a shoulder on both sides of the road.

Presently, if storm water overtops Bridge 1, the water flows over the roadway down Brea Boulevard and back into the channel on the west side of Brea Boulevard. The water is expected to overtop the existing trapezoidal channel, but is expected to be contained within OCFCD R/W. The purpose of the Brea Canyon Channel improvements is to increase the volume of water that can pass through the channel to accommodate bridge improvements associated with the road widening. The new bridges would allow more water to pass underneath in order to reduce the risk of roadway flooding. The downstream channel improvements are necessary to convey the additional water in a more controlled manner, create a harmonious design with the new bridges, increase flood protection, and reduce flood risk for the immediately adjacent residential, commercial, and industrial properties.

PROJECT ELEMENTS

The Project includes widening Brea Canyon Road from two to four lanes (two lanes each direction) along the entire approximately 7,600-linear-foot road limits, installing traffic signals approximately 1,200 feet north of Canyon Country Road and at the intersection of Brea Canyon Road and Tonner Canyon Road, and providing striping and installing new signage (refer to Figure 3, Proposed Project). The Project's main elements are described below.

Roadway Widening

Brea Canyon Road would be widened from two to four lanes (two lanes each direction) with 11-foot minimum width lanes, shoulders that would vary from 6-foot to 10-foot wide that could serve as bike lanes, and a raised median that varies from 12-foot to 14-foot or a 6-foot wide median with a concrete barrier. The proposed roadway design is considered a modified Primary Arterial Highway per OCPW's Standard Plan 1103 for Standard Street Sections because it would not provide 100 feet of R/W throughout the entire road limits.

Horizontal Alignment and Slope Cut

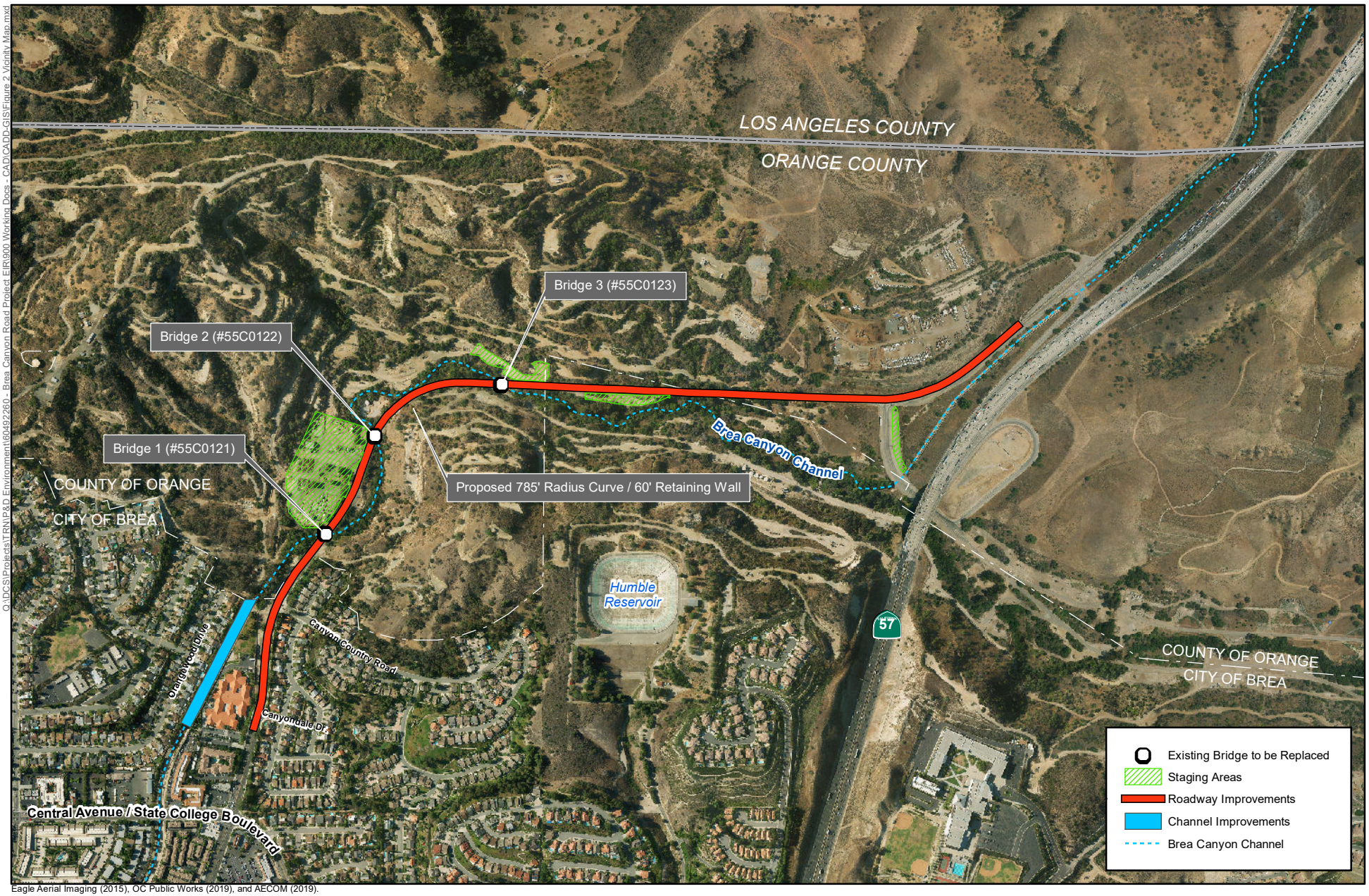
The horizontal alignment of the existing 700-foot radius curve would be increased to a minimum radius curve of 785 feet, with a superelevation of 9 percent, which is under the maximum allowable superelevation of 10 percent per the American Association of State Highway and Transportation Officials (AASHTO). The 785-foot radius curve with 9 percent superelevation would provide for a comfortable horizontal curve speed of 45 MPH. Because this existing curve occurs within a tightly aligned section of Brea Canyon Road between Brea Canyon Channel to the north and a tall and steep hill to the south, a substantial roadway cut slope of up to 60 feet or more in height is required to increase the radius curve and sight distance (length of roadway visible to a driver). Slope stability associated with the proposed slope cut would be addressed through the construction of an approximately 60-foot-high retaining wall. It should be noted that the retaining wall would obstruct sight distance on the inside of the horizontal curve, reducing the posted operating speed of the curve to 45 MPH.

Bridge Replacement and Culvert Crossing Modifications

Road widening would require replacement of the three bridges within the road limits, all of which are over 80 years old. There are approximately 13 culvert crossings (for drainage or oil lines or both) that would need to be extended or reconfigured as part of the widening.

Channel Improvements

The Brea Canyon Channel improvements would involve improving the existing riprap trapezoidal channel to an ultimate 40-foot-wide by 13.5-foot-tall reinforced concrete rectangular channel from approximately 600 feet upstream of Central Ave to 1,700 feet upstream of Central Ave, approximately 1,100 linear feet. The existing concrete transition structure at the upstream limit of the engineered channel will also be replaced.



Eagle Aerial Imaging (2015), OC Public Works (2019), and AECOM (2019).

Scale 1 : 12,000
1" = 1,000 feet

0 500 1,000 2,000 3,000 Feet

Figure 3
Proposed Project

Right-of-Way Acquisition, Driveway Access, and Utility Relocations

Overall, the Project would require road easements, retaining wall easements, temporary construction easement, and utility easements.

There are a number of existing driveway access points to properties that front Brea Canyon Road. Existing access points would be maintained, modified, relocated, consolidated and/or otherwise enhanced. In addition, the Project would require relocation of utilities and oilfield-related equipment. Utility and oilfield-related equipment relocations would require permits and/or agreements with the owners.

Work within Brea Canyon Channel would occur within OCFCD R/W, and additional R/W may be required to transition the natural drainage portion of Brea Canyon Channel to the proposed rectangular channel at the upstream flood limit.

Intersection Signalization, Striping, and Signage

The existing Tonner Canyon Road and Brea Canyon Road Intersection is proposed to be signalized to improve safety by reducing conflicts between motorists attempting to merge in either direction onto Brea Canyon Road. Tonner Canyon would be resurfaced and restriped to approximately 300 feet south of the intersection.

Installation of a new traffic signal approximately 1,200 feet north of Canyon Country Road would be included to provide a safe left turn onto Brea Boulevard for the oil field operator from their facility.

The existing traffic signal at Brea Canyon Road and Canyon Country Road would be replaced.

Striping and appropriate signage would be provided throughout the road limits. Per Orange County MPAH, Brea Canyon Road would be designed for a minimum design speed of 55 MPH, with the exception of the roadway between Canyondale Drive and the proposed 785-foot horizontal curve. In this segment, the design speed would match the existing speed limit within the City of Brea of 45 MPH. The retaining wall around the 785-foot horizontal curve would obstruct sight distance on the inside of the curve, reducing the recommended operational speed to 45 MPH, which would require yellow advisory speed signs.

CONSTRUCTION

Construction would result in lane closures and the potential for full closure of Brea Canyon Road is currently being analyzed.

The Project is anticipated to be split into three phases:

(1) the first phase will include utility relocations and the infrastructure necessary for utility companies to relocate their utilities;
(2) the second phase will include construction of all bridges, channel improvements, retaining walls, and grading necessary to construct the roadway; and
(3) the third phase will include the intersections along with the roadway.

If full closure of Brea Canyon Road is not feasible, traffic would be diverted depending on the phase. Bridge replacement may be built in phases to maintain traffic, but partial or short duration road closures are likely necessary to construct some structural elements of the three bridges.

There are four construction staging/laydown areas for the Project (refer to Figure 3):

(1) the first staging/laydown area would be located at an unpaved area 1,200 feet north of Canyon Country Road on the west side of Brea Boulevard located on private property;
(2) the second staging/laydown area would be located north of Bridge 3 on private property;

(3) the third staging/laydown area would be located at approximately the middle of the road limits on an unpaved strip containing an oil derrick on the south side of Brea Boulevard where the roadway is at a straightaway and aligned in an east/west direction; and
(4) the fourth staging/laydown area is located at an unpaved area on the east side of Tonner Canyon Road at its intersection with Brea Canyon Road.

All staging/laydown areas located on private property will require an agreement between the contractor and property owner and/or oil field operator.

Construction is expected to last approximately 4.5 years and is anticipated to begin in the year 2020.

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☒	Aesthetics	☐	Agriculture and Forestry Resources	☒	Air Quality
☒	Biological Resources	☒	Cultural Resources	☒	Energy
☒	Geology/Soils	☒	Greenhouse Gas Emissions	☒	Hazards & Hazardous Materials
☒	Hydrology/Water Quality	☒	Land Use/Planning	☐	Mineral Resources
☒	Noise	☐	Population/Housing	☐	Public Services
☐	Recreation	☒	Transportation/Traffic	☒	Tribal Cultural Resources
☐	Utilities/Service Systems	☒	Wildfire	☒	Mandatory Findings of Significance

Determination

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☒ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

5/17/19
Date

Cindy Salazar
Printed Name

Environmental Checklist Form

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS: Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	☒	☐	☐	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☒	☐	☐	☐
c) Substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☒	☐	☐	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☒	☐	☐	☐
II. AGRICULTURE AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒
III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☒	☐	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard?	☒	☐	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☒	☐	☐	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐
IV. BIOLOGICAL RESOURCES: Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, or NOAA Fisheries?	☒	☐	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☒	☐	☐	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☒	☐	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☒	☐	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☒	☐	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES: Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in §15064.5?	☒	☐	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☒	☐	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☒	☐	☐	☐
VI. ENERGY: Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☒	☐	☐	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☒	☐	☐	☐
VII. GEOLOGY AND SOILS: Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☒	☐	☐	☐
ii) Strong seismic ground shaking?	☒	☐	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☒	☐	☐	☐
iv) Landslides?	☒	☐	☐	☐
b) Result in substantial soil erosion or the loss of topsoil?	☒	☐	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☒	☐	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☒	☐	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☒	☐	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS: Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☒	☐	☐	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☒	☐	☐	☐
IX. HAZARDS AND HAZARDOUS MATERIALS: Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☒	☐	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☒	☐	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☒	☐	☐	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒
X. HYDROLOGY AND WATER QUALITY: Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☒	☐	☐	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(i) result in substantial erosion or siltation on- or off-site;	☒	☐	☐	☐
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☒	☐	☐	☐
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☒	☐	☐	☐
(iv) impede or redirect flood flows?	☒	☐	☐	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☒	☐	☐	☐
XI. LAND USE AND PLANNING: Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☒	☐	☐	☐
XII. MINERAL RESOURCES: Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒
XIII. NOISE: Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☒	☐	☐	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☒	☐	☐	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
XIV. POPULATION AND HOUSING: Would the project:				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
XV. PUBLIC SERVICES:				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒
XVI. RECREATION:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION: Would the project:				
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☒	☐	☐	☐
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☒	☐	☐	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☒	☐	☐	☐
d) Result in inadequate emergency access?	☒	☐	☐	☐
XVIII. TRIBAL CULTURAL RESOURCES: Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☒	☐	☐	☐
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☒	☐	☐	☐
XIX. UTILITIES AND SERVICE SYSTEMS: Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒
XX. WILDFIRE: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☒	☐	☐	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐
XXI. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☒	☐	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☒	☐	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐	☐

I. AESTHETICS

a) Have a substantial adverse effect on a scenic vista?

POTENTIALLY SIGNIFICANT IMPACT. According to Chapter 4, Community Resources, of the City of Brea General Plan (2003), there are two specific view corridors along Brea Canyon Road that offer views of scenic resources, such as prominent ridgelines, open space, and hillsides. Although the County of Orange has not specifically defined scenic vistas, they have identified ridgelines and hillsides as scenic areas in the Resources Element of the County of Orange General Plan (2005). As such, implementation of the Project has the potential to have a substantial adverse effect on a scenic vista. Therefore, this issue will be analyzed in the EIR.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

POTENTIALLY SIGNIFICANT IMPACT. State Route (SR) 57, between Imperial Highway and SR-60, is considered eligible for the California State Scenic Highway Program, and would offer some limited views of improvements associated with the Project. Additionally, while not officially designated as a scenic highway by the state or explicitly by the City of Brea, the City's General Plan includes a "Scenic Highways" section in which it discusses SR-57 and two highways, one of which being Brea Canyon Road. The General Plan states, "Brea Canyon Road leads the motorist on a historic drive into the City of Brea" and offers "views of the natural landscape". Therefore, this issue will be analyzed in the EIR.

c) Substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to substantially degrade the existing visual character or quality of public views of the site and its surroundings. Therefore, this issue will be analyzed in the EIR.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

POTENTIALLY SIGNIFICANT IMPACT. There are limited sources of light and glare throughout most of the flood and road limits, (hereafter referred to as project limits) and vicinity, with the most sources occurring on the southern end of the project limits within the City of Brea, including existing street lighting. Sources of light and glare in the rest of the project limits and vicinity would be from motorists utilizing Brea Canyon Road, oil field equipment and activities, and the SR-57 in the northern portion of the project limits. Implementation of the Project would install new traffic signals at the intersection of Brea Canyon Road and Tonner Canyon Road and approximately 1,200 feet north of Canyon Country Road, where there is no existing traffic light or street lighting at these locations. The provision of new signalized intersections could create new sources of light and glare that could affect day or nighttime views in the area. Therefore, this issue will be analyzed in the EIR.

II. AGRICULTURE AND FOREST RESOURCES

a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

NO IMPACT. The project limits and vicinity does not contain lands designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance[1]. Although the project site and surrounding area is zoned General Agricultural by the County of Orange, there are no agricultural resources or operations located in the project limits or vicinity. The General Agricultural zoning designation by the County of Orange also includes an Oil Production Overlay, which is what much of the surrounding area is utilized for. Thus, the Project would not result in the conversion of designated farmlands, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Department of Conservation. No impacts would occur. This issue will not be analyzed further in the EIR.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

NO IMPACT. Although the project limits and vicinity is zoned General Agricultural by the County of Orange, there are no agricultural resources or operations located in the project limits or vicinity. The General Agricultural zoning designation by the County of Orange also includes an Oil Production Overlay, which is what much of the surrounding area is utilized for. The Project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. No impacts would occur. This issue will not be analyzed further in the EIR.

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

NO IMPACT. The project limits are not located on forest land (as defined by Public Resources Code section 12220(g)), timberland (as defined in Public Resources Code section 4526), nor is the project limits zoned as timberland (as defined by Government Code section 51104(g)). Implementation of the Project would not involve any changes that could result in the conversion of timberland to non-timber uses. No impacts related to forest resources would occur. This issue will not be analyzed further in the EIR.

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

NO IMPACT. As described above, the project limits are not located on forest land, nor would the project involve the conversion of forest land to a non-forest use. No impacts related to the loss or conversion of forest land would occur. This issue will not be analyzed further in the EIR.

e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

NO IMPACT. Although the project limits and vicinity is zoned General Agricultural by the County of Orange, there are no agricultural resources or operations located in the project limits or vicinity. The Project involves widening an existing road and would not introduce any changes that would result in conversion of farmland to non-agricultural use. In addition, as stated above, the Project is not located on

[1] Farmland Mapping & Monitoring Program (FMMP), http://www.conservation.ca.gov/dlrp/fmmp/Pages/Index.aspx accessed on November 29, 2016.

forest land and would therefore not result in the conversion of forest land to non-forest use. No impacts would occur. Therefore, this issue will not be analyzed in the EIR.

III. AIR QUALITY

a) Conflict with or obstruct implementation of the applicable air quality plan?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to conflict with applicable air quality plans (South Coast Air Quality Management Plan). Therefore, this issue will be analyzed in the EIR.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to cumulatively increase criteria pollutants within a non-attainment area that is under a federal or state ambient air quality standard. Therefore, this issue will be analyzed in the EIR.

c) Expose sensitive receptors to substantial pollutant concentrations?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to result in an increase in air pollutant emissions, which could potentially expose sensitive receptors to substantial pollutant concentrations and could result in significant impacts. Therefore, this issue will be analyzed in the EIR.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

LESS THAN SIGNIFICANT IMPACT. Sources that may emit odors during construction activities include exhaust from diesel construction equipment and heavy-duty trucks, which could be considered offensive to some individuals. However, odors from these sources would be localized and generally confined to the immediate area surrounding the project limits. The Project would use typical construction techniques, such as grading by off-road equipment and hauling by on-road vehicles, and the odors would be typical of most construction sites and temporary in nature. Because of the amount and types of equipment, the temporary nature of these emissions, and the highly diffusive properties of diesel exhaust, nearby receptors would not be affected by diesel exhaust odors associated with Project construction. After construction of the Project, all construction-related odors would cease. Operation of the Project would not be expected to add any new odor sources, as Brea Canyon Road would continue to be used by varying types of motor vehicles similar to existing conditions. As a result, the Project would not create objectionable odors affecting a substantial number of people. Therefore, impacts related to odors would be less than significant. This issue will not be analyzed further in the EIR.

IV. BIOLOGICAL RESOURCES

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to have a substantial adverse effect, either directly or through habitat modifications, on species identified as candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS). Therefore, this issue will be analyzed in the EIR.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or USFWS. Therefore, this issue will be analyzed in the EIR.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to have a substantial adverse effect on state or federally protected wetlands. Therefore, this issue will be analyzed in the EIR.

d) Would be project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to interfere substantially with the movement of a native resident or migratory wildlife species or with established native resident or migratory wildlife corridors. Therefore, this issue will be analyzed in the EIR.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

NO IMPACT. Implementation of the Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Orange County and the City of Brea do not have any policy or ordinance specifically protecting biological resources, such as trees. No impact would occur. This issue will not be analyzed further in the EIR.

It should be noted that, as discussed later in this Initial Study, the Project has the potential to conflict with applicable land use plans, policies, and/or regulations adopted for the purpose of avoiding or mitigating environmental effects, which may indirectly involve biological resources. These potential conflicts will be discussed and analyzed within the Land Use and Planning section of the EIR.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

POTENTIALLY SIGNIFICANT IMPACT. The Project would result in some encroachment upon, and acquisition of, adjacent lands designated for various uses and has the potential to conflict with the provisions of an adopted conservation plan. Therefore, this issue will be analyzed in the EIR.

V. CULTURAL RESOURCES

a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to cause a substantial change in the significance of a historical resource pursuant to Section 15064.5 of CEQA. Therefore, this issue will be analyzed in the EIR.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of CEQA. Therefore, this issue will be analyzed in the EIR.

c) Disturb any human remains, including those interred outside of formal cemeteries?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to disturb human remains. Therefore, this issue will be analyzed in the EIR.

VI. ENERGY

a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project would result in the consumption of energy resources during construction and operation. Therefore, this issue will be analyzed in the EIR.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, this issue will be analyzed in the EIR.

VII. GEOLOGY AND SOILS

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

POTENTIALLY SIGNIFICANT IMPACT. The Whittier Fault trends northwest/southeast through the northern end of the project limits, south of the Orange County/Los Angeles County boundary line. The Project is located within an Alquist-Priolo Fault Zone. As such, implementation of the Project could expose people or structures to potential substantial adverse effects involving rupture of a known earthquake fault. Therefore, this issue will be analyzed in the EIR.

(ii) Strong seismic ground shaking?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project could expose people or structures to potential substantial adverse effects involving strong seismic ground shaking. Therefore, this issue will be analyzed in the EIR.

(iii) Seismic-related ground failure, including liquefaction?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project could expose people or structures to potential substantial adverse effects involving seismic-related ground failure, including liquefaction. Therefore, this issue will be analyzed in the EIR.

(iv) Landslides?

POTENTIALLY SIGNIFICANT IMPACT. As part of Project improvements, a substantial roadway cut slope of up to 60 feet or more in height would be required, which would result in the need to construct an approximately 60-foot-high retaining wall. Although the purpose of the retaining wall would be to address slope stability, including landslides, this issue will be analyzed in detail in the EIR.

b) Result in substantial soil erosion or the loss of topsoil?

POTENTIALLY SIGNIFICANT IMPACT. Grading and slope cutting activities during construction would expose soils to potential erosion and could result in the loss of topsoil. Therefore, this issue will be analyzed in the EIR.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the project could locate project elements on a geologic unit or soil that is unstable, or could become unstable as a result of the Project, and potentially result in impacts associated with on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. Therefore, this issue will be analyzed in the EIR.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

POTENTIALLY SIGNIFICANT IMPACT. According to the County of Orange General Plan, much of Orange County is covered by expansive soils. As such, implementation of the Project could potentially expose people to risks related to expansive soils. Therefore, this issue will be analyzed in the EIR.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

NO IMPACT. The Project does not include septic tanks or alternative waste disposal systems. This issue will not be analyzed further in the EIR.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. Therefore, this issue will be analyzed in the EIR.

VIII. GREENHOUSE GAS EMISSIONS

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. Therefore, this issue will be analyzed in the EIR.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to conflict with an applicable plan, policy, or regulation (such as Assembly Bill 32) adopted for the purpose of reducing the emissions of greenhouse gases. Therefore, this issue will be analyzed in the EIR.

IX. HAZARDS AND HAZARDOUS MATERIALS

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

LESS THAN SIGNIFICANT IMPACT. The Project involves widening an existing road. Construction of the Project would require the use of hazardous materials. Hazardous materials that are used during construction (e.g., petroleum-based products, paints, solvents, sealers, etc.) would be transported, used, stored, and disposed of according to City, County, state, and federal regulations. Operation of the Project would not involve routine transport, use, or disposal of hazardous materials, or result in the release of hazardous materials into the environment. Therefore, hazards to the public or the environment through the routine transport, use, or disposal of hazardous materials would be less than significant and no mitigation measures would be required. This issue will not be analyzed further in the EIR.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment during construction due to unknown hazardous materials within the project limits. The project limits and adjacent properties have been used for a number of years to produce and store crude oil and other petroleum products, and undocumented wells, pipelines, and other oil field-related appurtenances could be unexpectedly encountered during construction of the Project. Therefore, this issue will be analyzed in the EIR.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

LESS THAN SIGNIFICANT IMPACT. Mariposa Elementary School, located at 1111 Mariposa Drive in the City of Brea, is located within one-quarter mile of the project limits. However, as stated previously, operation of the Project would not involve routine transport, use, or disposal of hazardous materials, or result in the release of hazardous materials into the environment. Project construction would involve the use of some common construction-related substances classified as hazardous materials (e.g., petroleum-based products, paints, solvents, sealers, etc.) that would be transported, used, stored, and disposed of according to City, County, state, and federal regulations. No acutely hazardous materials or substances, or wastes would be handled. Therefore, impacts associated with the emission or handling of hazardous materials within one-quarter mile of a school would be less than significant and no mitigation measures would be required. This issue will not be analyzed further in the EIR.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

POTENTIALLY SIGNIFICANT IMPACT. A Hazardous Materials Assessment (HMA) was performed in conformance with the scope and limitations of the American Society for Testing and Materials (ASTM) Practice E 1527-13 for the Project, which involved (1) a review of historical documents, (2) a regulatory agency database search, (3) a property inspection and area reconnaissance, and (4) interview activities including a review of a User Questionnaire. Based on the HMA, the Project would not be located on a site that is included on a list of hazardous materials sites; however, a total of 74 mapped sites were identified within a one-mile radius of the Project. Further investigation of each of these sites found all had a low potential for impacting the Project. No orphan sites (i.e., a contaminated property where no one is willing or able to provide adequate clean up) with poor or inadequate mapping information were provided in the database search and no Recognized Environmental Conditions (RECs) (i.e., the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property) were identified as

part of the record search, review of historical documents, property inspection and reconnaissance, or interviews. Overall, no evidence of environmental degradation to the property from hazardous materials contamination was identified. However, the project limits and adjacent properties have been used for a number of years to produce and store crude oil and other petroleum products, and undocumented wells, pipelines, and other oil field-related appurtenances could be unexpectedly encountered during construction of the Project. Therefore, this issue will be analyzed in the EIR.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

NO IMPACT. The project limits are not located within 2 miles of a public airport or in the vicinity of a public airport or public use airport. The closest airport to the project limits is the Fullerton Municipal Airport which is approximately 6.25 miles to the southwest. Therefore, implementation of the Project would not result in public safety or excessive aircraft-related noise impacts associated with airports. This issue will not be analyzed further in the EIR.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

POTENTIALLY SIGNIFICANT IMPACT. Construction of the Project would result in lane closures and the potential for full closure of Brea Canyon Road is currently being analyzed. Therefore, this issue will be analyzed in the EIR.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

NO IMPACT. The Project is located within an area that is subject to wildland fires. However, the Project involves widening an existing road and would not expose people or structures to greater wildland fire-related hazards than currently exist at the project site. No impacts would occur. This issue will not be analyzed further in the EIR.

X. HYDROLOGY AND WATER QUALITY

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to result in a violation of water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Therefore, this issue will be analyzed in the EIR.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

LESS THAN SIGNIFICANT IMPACT. The Project would not result in an increase in the demand for water production because the Project involves widening an existing road. No wells would be drilled or operated. The Project would not have the potential to directly change the rate or flow of groundwater because it would not interfere with any known aquifers. No improvements are proposed that would substantially interfere with groundwater recharge, as increases in impervious surfaces associated with the widened road would continue to drain to the adjacent Brea Canyon Channel. Therefore, impacts to groundwater supplies or recharge and sustainable groundwater management would be less than significant and no mitigation measures would be required. This issue will not be analyzed further in the EIR.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

(i) Result in substantial erosion or siltation on- or off-site;

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that could result in substantial erosion or siltation on- or off-site. Therefore, this issue will be analyzed in the EIR.

(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to substantially alter the existing drainage pattern of the site or area, or substantially increase the rate or amount of surface runoff in a manner that could result in flooding on- or off-site. Therefore, this issue will be analyzed in the EIR.

(iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to create or contribute runoff water that could impact the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Therefore, this issue will be analyzed in the EIR.

(iv) Impede or redirect flood flows

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project would place structures within the 100-year flood hazard area that could impede or redirect flood flows. Therefore, this issue will be analyzed in the EIR.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

NO IMPACT. Seiches are extensive wave actions on lakes, reservoirs, or other enclosed bodies of water caused by meteorological or seismic activity, such as earthquakes. Tsunamis are seismically-induced sea waves generated by offshore earthquake, submarine landslide, or volcanic activity. The project limits are not located near a large body of water that would be subject to seiches or tsunamis. Therefore, no impacts related to inundation from seiche and tsunami would occur.

The project limits are situated within the 100-year flood hazard area, which will be analyzed as part of question (c), above, however, the Project involves widening an existing road and does not include storage of materials or pollutants that would be at risk of release due to inundation. No impacts would occur. This issue will not be analyzed further in the EIR..

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to conflict with or obstruct implementation of a water quality control plan. Therefore, this issue will be analyzed in the EIR.

XI. LAND USE AND PLANNING

a) Physically divide an established community?

NO IMPACT. The Project involves widening an existing road and has no potential to divide an established community. All existing land uses near the project limits would continue to be accessible via roadway and driveway. There are a number of existing driveway access points to properties that front Brea Canyon Road. Existing access points would be maintained, modified, relocated, consolidated and/or otherwise enhanced. No impacts related to physically dividing an established community would occur. This issue will not be analyzed further in the EIR.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

POTENTIALLY SIGNIFICANT IMPACT. The Project involves widening an existing road. Although no changes to the existing City of Brea and Orange County zoning and General Plan land use designations are expected to occur, the Project would result in some encroachment upon, and acquisition of, adjacent lands designated for various uses. As such, the Project has the potential to conflict with applicable land use plans, policies, and/or regulations adopted for the purpose of avoiding or mitigating environmental effects. Therefore, this issue will be analyzed in the EIR.

XII. MINERAL RESOURCES

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

NO IMPACT. The project limits and majority of the surrounding area has been classified as Mineral Resource Zone 3 (MRZ 3), as shown on Plates 3.11 and 3.12 of the Generalized Mineral Land Classification Map of Orange County[2] for aggregate resources (sand, gravel, and stone). MRZ-3 areas indicate locations that contain mineral deposits, the significance of which cannot be evaluated due to inadequate surface data on quality. While there is oil field activity in the vicinity of the project limits, there are no current mining activities for aggregate and neither the City of Brea nor the County of Orange General Plans identify the project limits as a mineral resource zone or recovery site. Furthermore, the Project involves the widening of an existing roadway, which would not result in the loss of or access to potential mineral resources. No impacts would occur. This issue will not be analyzed further in the EIR.

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

NO IMPACT. As discussed above, neither the City of Brea nor the County of Orange General Plans identify the project limits as a mineral resource zone or recovery site and the Project involves the widening of an existing roadway, which would not result in the loss of or access to potential mineral resources. No impacts would occur. This issue will not be analyzed further in the EIR.

XIII. NOISE

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to result in the exposure of persons to or generation of temporary or permanent increases in ambient noise levels in the vicinity of the project limits in excess of standards established in the local general plan or noise

[2] Division of Mines and Geology (1994), http://www.quake.ca.gov/gmaps/WH/smaramaps.htm accessed on November 30, 2016.

ordinance, or applicable standards of other agencies during construction. Therefore, this issue will be analyzed in the EIR.

b) Generation of excessive groundborne vibration or groundborne noise levels?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels during construction. Therefore, this issue will be analyzed in the EIR.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

NO IMPACT. The project limits are not located within the vicinity of a private airstrip and not located within 2 miles of a public airport or in the vicinity of a public airport or public use airport. The closest airport to the project limits is the Fullerton Municipal Airport which is approximately 6.25 miles to the southwest. Therefore, implementation of the Project would not result in the exposure of people to excessive noise generated by a public airport. No impact would occur. This issue will not be analyzed further in the EIR.

XIV. POPULATION AND HOUSING

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

NO IMPACT. The Project involves widening an existing road and is intended to improve congestion and safety. There is no proposed residential or commercial/business component that could result in substantial population growth in the area. Construction workers would either be existing County employees or come from the existing local labor pool. Implementation of the Project would not result in the generation of new permanent jobs and would not contribute to any substantial population growth. Therefore, Project implementation would not induce growth, either directly or indirectly. No impact would occur. This issue will not be analyzed further in the EIR.

b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

NO IMPACT. The Project involves widening an existing road. The project limits do not contain residential structures. Therefore, implementation of the Project would not displace any people or existing housing. No impact would occur. This issue will not be analyzed further in the EIR.

XV. PUBLIC SERVICES

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire protection?

NO IMPACT. The Project involves widening an existing road. Therefore, implementation of the Project would not create a potential fire hazard or result in an increase in the occurrence of fires. There would be no increase in the demand for fire protection that would result in the need for new or expanded fire protection facilities. No impacts would occur. This issue will not be analyzed further in the EIR.

Police protection?

NO IMPACT. The Project involves widening an existing road. Therefore, implementation of the Project would not result in an increase in the occurrence of crime, an increase in the demand for police protection, or the need for new or expanded police protection facilities. No impacts would occur. This issue will not be analyzed further in the EIR.

Schools?

NO IMPACT. The Project does not include new residential development and would not result in an increased demand for school services. As such, the Project would not result in the need to alter existing schools or construct new schools, the construction of which could result in significant impacts on the physical environment. Therefore, no impacts related to schools would occur. This issue will not be analyzed further in the EIR.

Parks?

NO IMPACT. The Project involves widening an existing road and does not include any residential units. Therefore, the Project would not result in an increased demand for additional park facilities. No impacts would occur. This issue will not be analyzed further in the EIR.

Other public facilities?

NO IMPACT. No other public services would be impacted by the Project. The Project is not expected to adversely affect any other governmental services in the area. Therefore, no impacts related to other public facilities would occur. This issue will not be analyzed further in the EIR.

XVI. RECREATION

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

NO IMPACT. Demand for recreational facilities is primarily generated by permanent residents. The Project involves widening an existing road and does not include residential or other development that would result in either direct or indirect impacts to existing regional parks or other recreational facilities. Therefore, the Project would not result in an increase in the use of local or regional parks or recreational facilities. No impacts would occur. This issue will not be analyzed further in the EIR.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

NO IMPACT. The Project involves widening an existing road. The Project does not include the development of new recreational facilities or require the construction or expansion of other recreational facilities which might have an adverse impact on the environment. No impacts would occur. This issue will not be analyzed further in the EIR.

XVII. TRANSPORTATION

a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

POTENTIALLY SIGNIFICANT IMPACT. Although the Project involves widening an existing road for the purpose of improving congestion and safety, a traffic analysis will be prepared to analyze the Project and its effect regarding applicable programs, plans, ordinances, or policies addressing the circulation system. Therefore, this issue will be analyzed in the EIR.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

POTENTIALLY SIGNIFICANT IMPACT. Although the Project involves widening an existing road for the purpose of improving congestion and safety, a traffic analysis will be prepared to analyze the Project and its effect regarding consistency with CEQA Guidelines section 15064.3, subdivision (b). Therefore, this issue will be analyzed in the EIR.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

POTENTIALLY SIGNIFICANT IMPACT. Although the Project involves widening an existing road for the purpose of improving congestion and safety, a traffic analysis will be prepared to analyze the Project and its effect regarding design feature hazards (e.g., sharp curves or dangerous intersections) or incompatible uses. Therefore, this issue will be analyzed in the EIR.

d) Result in inadequate emergency access?

POTENTIALLY SIGNIFICANT IMPACT. Construction of the Project would result in lane closures and the potential for full closure of Brea Canyon Road is currently being analyzed. Therefore, this issue will be analyzed in the EIR.

XVIII. TRIBAL CULTURAL RESOURCES

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to cause a substantial change in the significance of a tribal cultural resource as defined in Public Resources Code section 21074 and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k). Therefore, this issue will be analyzed in the EIR.

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to cause a substantial change in the significance of a tribal cultural resource as defined in Public Resources Code section 21074 and that is determined to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1 Therefore, this issue will be analyzed in the EIR.

XIX. UTILITIES AND SERVICE SYSTEMS

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects?

LESS THAN SIGNIFICANGT IMPACT. The Project involves widening an existing road. Thus, the Project would not result in the generation of raw sewage, nor create a demand for sewer collection and/or treatment facilities. Likewise, the Project would not result in an increased demand for wastewater, water treatment. electric power, natural gas, or telecommunications facilities. No new or expanded wastewater or water treatment facilities would be required to accommodate the Project. No impacts would occur.

The road widening would result in an increase in impervious surfaces; however, all runoff from the project limits would continue to drain to the adjacent Brea Canyon Channel. Certain elements of the Project, such as the new retaining wall, would require appropriate drainage design consideration; however, the Project would not require or result in the construction of substantial new stormwater drainage facilities or expansion of existing facilities. Therefore, impacts related to construction or expansion of stormwater drainage facilities would be less than significant and no mitigation measures would be required.

This issue will not be analyzed further in the EIR.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

NO IMPACT. Construction and operation of the Project would not affect water supplies, as the Project invovles widening an existing road. Construction activity would require minimal amounts of water which would be accommodated from existing water supplies and entitlements. Implementation of the Project would not result in the need to expand existing water facilities or construct new water facilities. No impacts would occur. This issue will not be analyzed further in the EIR.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

NO IMPACT. No development is proposed that would result in the generation of raw sewage. No impacts would occur. This issue will not be analyzed further in the EIR.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

LESS THAN SIGNIFICANT IMPACT. The Project involves the widening of an existing road and associated improvements, including demolition and removal of three existing bridges, possible reconfiguration of some existing culverts, and a substantial slope cut requiring a retaining wall, all of which would generate some construction-related solid waste. Operation of the Project would not result in the generation of solid waste. It should be noted the County would ensure that at least 50 percent of

construction and demolition waste from the Project is recycled per the OC Waste & Recycling Construction and Demolition Recycling and Reuse Program. The remaining waste would not be considered substantial and could be accommodated at local landfills. Impacts would be less than significant. This issue will not be analyzed further in the EIR.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

NO IMPACT. As indicated above, the quantity of solid waste would not be substantial and would be accommodated by local landfills. The Project would comply with all federal, state and local statutes and regulations related to the disposal of solid waste. Therefore, no impacts related to compliance with statues and regulations related to solid waste would occur. This issue will not be analyzed further in the EIR.

XX. WILDFIRE

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

POTENTIALLY SIGNIFICANT IMPACT. Construction of the Project would result in lane closures and the potential for full closure of Brea Canyon Road is currently being analyzed. Therefore, this issue will be analyzed in the EIR.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

LESS THAN SIGNIFICANT IMPACT. The Project is located within an area that is subject to wildland fires. However, the Project involves widening an existing road and would not exacerbate wildland fire-related hazards over those that currently exist in the vicinity of the project site. Impacts would be less than significant. This issue will not be analyzed further in the EIR.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

LESS THAN SIGNIFICANT IMPACT. The Project involves widening an existing road. No development is proposed that would require the installation or maintenance of associated infrastructure that could exacerbate existing fire risks. Impacts would be less than significant. This issue will not be analyzed further in the EIR.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

LESS THAN SIGNIFICANT IMPACT. Implementation of the Project would involve changes that could alter the existing drainage pattern of the site or area, or increase the rate or amount of surface runoff in a manner that could result in flooding on- or off-site, which will be analyzed as part of Section X, Hydrology and Water Quality. However, the Project involves widening an existing road and would not exacerbate wildland fire-related hazards over those that currently exist in the vicinity of the project site. Impacts would be less than significant. This issue will not be analyzed further in the EIR.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or

animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

POTENTIALLY SIGNIFICANT IMPACT. As described previously in this Initial Study Checklist, implementation of the Project has the potential to degrade the quality of the environment, as well as result in potential significant impacts to biological resources and cultural resources. Therefore, this issue will be analyzed in the EIR.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

POTENTIALLY SIGNIFICANT IMPACT. Implementation of the Project has the potential to have impacts that are individually limited but cumulatively considerable. Therefore, this issue will be analyzed in the EIR.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

POTENTIALLY SIGNIFICANT IMPACT. As described previously in this Initial Study Checklist, implementation of the Project has the potential to result in environmental effects which would cause direct and/or indirect substantial adverse effects on human beings. Therefore, this issue will be analyzed in the EIR.

Agency	Attn:	Address	City, State, Zip
AT & T HEADQUARTERS		208 S. AKARD ST	DALLAS, TX 75202
CITY OF INDUSTRY		15651 STAFFORD ST	CITY OF INDUSTRY, CA 91744
ORANGE COUNTY SHERRIFF'S DEPARTMENT- HEADQUARTERS		550 N. FLOWER ST	SANTA ANA, CA 92703
SPRINT HEADQUARTERS		6200 SPRINT PKWY	OVERLAND PARK, KS 66251
TW TELECOM, INC		7 MASON	IRVINE, CA 92618
VERIZON HEADQUARTERS		140 W. ST.	NEW YORK, NY 10036
VERIZON HEADQUARTERS		1095 AVENUE OF THE AMERICAS	NEW YORK, NY 10036
VINTAGE CREEK SENIOR		3803 E CASSELLE AVE	ORANGE, CA 92869
AERA ENERGY		3030 SATURN ST #101	BREA, CA 92821
AERA ENERGY		10000 MING AVE	BAKERSFIELD, CA 93311
AERA ENERGY, LLC	ATTN: MICHAEL KLANCHER	3030 SATURN ST., STE 101	BREA, CA 92821
ARMY CORPS OF ENGINEERS	ATTN: JASON LAMBERT	915 WILSHIRE BLVD., SUITE 1101	LOS ANGELES, CA 90017-3401
ATTN: ENVIRONMENTAL REVIEW	SOUTHERN CA GAS COMPANY	3050 E LA JOLLA STREET	ANAHEIM, CA 92806
ATTN: ENVIRONMENTAL REVIEW	SOUTHERN CALIFORNIA EDISON	1325 S. GRAND AVE.	SANTA ANA, CA 92705
ATTN: ENVIRONMENTAL REVIEW	SANITATION DISTRICTS OF ORANGE COUNTY	10844 ELLIS AVENUE	FOUNTAIN VALLEY, CA 92708
ATTN: ENVIRONMENTAL REVIEW	SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT	21865 EAST COPLEY DRIVE	DIAMOND BAR, CA 91765-4182
ATTN: VINTAGE CANYON APARTMENTS			
BREA BREA LLC		3131 ELLIOTT AVE STE 500	SEATTLE, WA 98121
BREA BREA LLC		285 W CENTRAL AVE	BREA, CA 92821
BREA HILLS, LLC		1712 BREA BLVD	BREA, CA 92835
BREA HILLS, LLC		1531 N. BREA CANYON BLVD	BREA, CA 92835
BREA HILLS, LLC		1316 SOLANO AVE	ALBANY, CA 94706
BREA WOODS APTS LLC		1619 SUNSET RDG	LAGUNA BEACH, CA 92651
CA DEPT OF TOXIC SUBSTANCES CONTROL, CYPRESS REGIONAL OFFICE	ATTN: RAFIQ AHMED	5796 CORPORATE AVENUE	CYPRESS, CA 90630-4700
CALIFORNIA HIGHWAY PATROL , SOUTHERN DIVISION	ATTN: ENVIRONMENTAL REVIEW	411 NORTH CENTRAL AVENUE	GLENDALE, CA 91203
CALRESOURCES, LLC		1281 BREA CANYON RD	BREA, CA 92821
CALRESOURCES, LLC		PO BOX 11164	BAKERSFIELD, CA 93389
CALTRANS	TRANSPORTATION PLANNING DIVISION, MS NO 32	P.O. BOX 942874	SACRAMENTO, CA 94274-0001
CALTRANS, DISTRICT 12	ATTN: CHRISTOPHER HERRE	1750 EAST 4TH STREET, SUITE 100	SANTA ANA, CA 92705
CALTRANS, DISTRICT 12	ATTN: ENVIRONMENTAL REVIEW	1750 EAST 4TH STREET, SUITE 100	SANTA ANA, CA 92705
CALTRANS, DISTRICT 8	ATTN: LOCALPLANNING, INTER GOVERNMENTAL REVIEW	464 w. 4TH STREET	SAN BERNARDINO, CA 92401
CALTRANS, DISTRICT 8	ATTN: ENVIRONMENTAL REVIEW	464 w. 4TH STREET	SAN BERNARDINO, CA 92401
CAROL EMERY, EXECUTIVE OFFICER	ORANGE COUNTY LAFCO	2677 N. MAIN STREET, SUITE 1050	SANTA ANA, CA 92705
CHEVRON PIPELINE COMPANY		1400 SMITH STREET	HOUSTON, TX 77002
CITY OF BREA	ATTN: ENVIRONMENTAL REVIEW, PLANNING DIVISION	1 CIVIC CENTER CIRCLE	BREA, CA 92821
CITY OF BREA	ATTN: PUBLIC WORKS - ENGINEERING, PLANNING DIVISION	1 CIVIC CENTER CIRCLE	BREA, CA 92821
CITY OF DIAMOND BAR	PUBLIC WORKS DEPARTMENT, ENVIRONMENTAL REVIEW	21810 COPLEY DRIVE	DIAMOND BAR, CA 91765
CITY OF DIAMOND BAR, COMMUNITY DEVELOPMENT DEPT, PLANNING DIVISION	ATTN: ENVIRONMENTAL REVIEW	21810 COPLEY DRIVE	DIAMOND BAR, CA 91765
COOPER & BRAIN, INC		PO BOX 1177	WILMINGTON, CA 90748-1177
COUNTY OF LOS ANGELES	DEPARTMENT OF REGIONAL PLANNING	320 WEST TEMPLE STREET	LOS ANGELES, CA 90012
COUNTY OF SAN BERNARDINO	ATTN: DEPT. OF PUBLIC WORKS	825 E. 3RD STREET	SAN BERNARDINO, CA 92415
COUNTY OF SAN BERNARDINO, COUNTY GOVERNMENT CENTER	ATTN: LAND USE SERVICES DEPT.	385 N. ARROWHEAD AVENUE	SAN BERNARDINO, CA 92415
CROWN CASTLE	WEST AREA	38 EXECUTIVE PARK, SUITE 310	IRVINE, CA 92614
DAVID EVANS AND ASSOCIATES, INC.	ATTN: ROMEO FIRME	17782 17TH STREET SUITE 200	TUSTIN, CA 92680-1947
DOWNEY FUNDING CORP		2800 E LAKE ST	MINNEAPOLIS, MN 55406
ED PERT, REGIONAL MANAGER	CA DEPT OF FISH AND WILDLIFE	3883 RUFFIN ROAD	SAN DIEGO, CA 92123
GABRIELENO BAND OF MISSION INDIANS	ATTN: ANDREW SALAS	P. O. BOX 393	COVINA, CA 91723
JASON MARSHALL, CHIEF DEPUTY DIRECTOR	CA DEPARTMENT OF CONSERVATION	801 K STREET, MS 24-01	SACRAMENTO, CA 95814
JDO PROFESSIONAL PLAZA LLC		445 26TH ST	MANHATTAN BEACH, CA 90266
JDO PROFESSIONAL PLAZA LLC		255 W CENTRAL AVE	BREA, CA 92821
JENNIFER LUCCHESI, EXEC. OFFICER	STATE LANDS COMMISSION	100 HOWE AVE. SOUTH, SUITE 100-S	SACRAMENTO, CA 95825
JUANENO BAND OF MISSION INDIANS	ATTN: JOYCE STANFIELD PERRY	4955 PASEO SEGOVIA	IRVINE, CA 92603
KAREN GOEBEL	U.S. FISH & WILDLIFE SERVICE	2177 SALK AVENUE, SUITE 250	CARLSBAD, CALIFORNIA 92008
KEVIN SHANNON	ORANGE COUNTY DEPARTMENT OF PUBLIC WORKS – COMMUNITY DEVT	300 N. FLOWER STREET	SANTA ANA, CA 92703-5000

KINDRED HOSPITAL BREA	ATTN: CHIEF EXECUTIVE OFFICER	875 NORTH BREA BOULEVARD	BREA, CA 92821-2606
LAURA BLAUL, FIRE PREVENTION	ORANGE COUNTY FIRE AUTHORITY	1 FIRE AUTHORITY ROAD	IRVINE, CA 92602
LINN WESTERN OPERATING, INC.	ATTN: ENVIRONMENTAL REVIEW	600 TRAVIS, SUITE 600	HOUSTON, TX 77002
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFIORNIA	ATTN: JEFFREY KIGHTLINGER	700 N. ALAMEDA STREET	LOS ANGELES, CA 90012
MICHAEL R. MARKUS, P.E., GEN. MGR.	ORANGE COUNTY WATER DISTRICT	18700 WARD STREET	FOUNTAIN VALLEY, CA 92708
NATIVE AMERICAN HERITAGE COMMISSION	ATTN: ENVIRONMENTAL REVIEW	1550 HARBOR BOULEVARD. SUITE 100	WEST SACRAMENTO, CA 95691
NIETO & SONS TRUCKING		1281 SOUTH BREA CANYON ROAD	BREA, CA 92821
OC WASTE AND RECYCLING	ATTN: JOHN ARNAU	300 NORTH FLOWER STREET, SUITE 400	SANTA ANA, 92703
ORANGE COUNTY FIRE AUTHORITY	ATTN: MICHELE HERNANDEZ	1 FIRE AUTHORITY ROAD	IRVINE, CA 92602
ORANGE COUNTY PUBLIC LIBRARY	BREA LIBRARY	1 CIVIC CENTER CIRCLE	BREA, CA 92821
ORANGE COUNTY SHERIFF'S DEPARTMENT – ADMINISTRATION		909 N. MAIN ST #2	SANTA ANA, CA 92701
ORANGE COUNTY TRANSPORTATION AUTHORITY	ATTN: CHARLES LARWOOD	550 SOUTH. MAIN STREET	ORANGE, CA 92868
ROBERT BEAVER, DIRECTOR	ORANGE COUNTY SHERIFF, RESEARCH AND DEVELOPMENT DVSN	431 CITY DRIVE SOUTH	ORANGE, CA 92868
SAN BERNARDINO COUNTY COUNCIL OF GOVERNMENTS		1170 WEST 3RD STREET, SECOND FLOOR	SAN BERNARDINO, CA 92410-1715
SAN BERNARDINO COUNTY TRANSPORTATION AUTHORITY		1170 WEST 3RD STREET, SECOND FLOOR	SAN BERNARDINO, CA 92410-1715
SANTA ANA REGIONAL WATER QUALITY CONTROL BOARD	ATTN: 401 WATER QUALITY CERT.	3737 MAIN STREET, SUITE 500	RIVERSIDE, CA 92501
SOBOBA BAND OF LUISENO INDIANS	ATTN: JOSEPH ONTIVEROS	P. O. BOX 487	SAN JACINTO, CA 92581
SOUTHERN CALIFORNIA ASSN. OF GOVERNMENTS	ATTN: JONATHAN NADLER	818 W. SEVENTH ST., 12TH FLOOR	LOS ANGELES, CA 90017
SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS	ATTN: LIJIN SUN	818 WEST 7TH STREET, SUITE 1200	LOS ANGELES, CA 90017
STATE CLEARINGHOUSE	OFFICE OF PLANNING AND RESEARCH	140 Tenth Street	SACRAMENTO, CA 95814
STATE OF CALIFORNIA DIVISION OF HWYS		13571 W CENTRAL AVE	BREA, CA 92821
STATE WATER RESOURCES CONTROL BOARD	ATTN: ENVIRONMENTAL REVIEW	1001 I STREET, 15TH FLOOR	SACRAMENTO, CA 95814
TONNER CANYON LLC		1403 N BREA BLVD	BREA, CA 92835
TONNER CANYON LLC		1316 SOLANO AVE	ALBANY, CA 94706
USA PROPERTIES FUND		3200 DOUGLAS BOULEVARD, SUITE 200	ROSEVILLE, CA 95661
VENTAS REALTY		875 N BREA BLVD	BREA, CA 92821
VENTAS REALTY		680 S 4TH STREET	LOUISVILLE, KY 40202
VINTAGE PRODUCTIONS CALIFORNIA LLC		9600 MING AVENUE, SUITE 300	BAKERSFIELD, CA 93311
WILDLIFE CORRIDOR CONSERVATION AUTHORITY	ATTN: JUDI TAMASI	570 WEST AVENUE 26, SUITE 100	LOS ANGELES, CA 90065

First/Last Name	Current Resident	Address	City, State, Zip
HEYDARI ABBAS	Current Resident	1212 GRAND CANYON	BREA, CA 92821
LEE YUNMI	Current Resident	1168 GRAND CANYON	BREA, CA 92821
JOHN & BARBARA MATTSON	Current Resident	1132 GRAND CANYON	BREA, CA 92821
FERNANDO FLORES	Current Resident	1108 GRAND CANYON	BREA, CA 92821
CAMPAS FAMILY LIVING	Current Resident	1084 GRAND CANYON	BREA, CA 92821
SANDRA LAWRENCE	Current Resident	1052 GRAND CANYON	BREA, CA 92821
DAVID & SUSAN HODGSON	Current Resident	1036 GRAND CANYON	BREA, CA 92821
LINO C WONG	Current Resident	1012 GRAND CANYON	BREA, CA 92821
MICHAEL CHIANG	Current Resident	992 GRAND CANYON	BREA, CA 92821
CAROLYN CAMPBELL	Current Resident	1020 N EVENING CANYON RD	BREA, CA 92821
TIMOTHY CHAN	Current Resident	400 E HERMOSA DRIVE	SAN GABRIEL, CA 91775
JU HONG LEE	Current Resident	990 N EVENING CANYON RD	BREA, CA 92821
JONATHAN KIYOSHI FUJIMOTO	Current Resident	922 N EVENING CANYON RD	BREA, CA 92821
KENNETH & DEBRA CAMACHO	Current Resident	1003 GRAND CANYON RD	BREA, CA 92821
MICHAEL BARRY CONDIFF	Current Resident	965 GRAND CANYON RD	BREA, CA 92821
EDGARDO & PEGGY CRISOSTOMO	Current Resident	1101 N NIGUEL CANYON WAY	BREA, CA 92821
ALBERT & WENDY GARCIA	Current Resident	1148 N NIGUEL CANYON WAY	BREA, CA 92821
ROBERT & ANNE MARIE LANPHAR	Current Resident	1102 N NIGUEL CANYON WAY	BREA, CA 92821
RITA BHATT	Current Resident	1014 N GLEN CANYON WAY	BREA, CA 92821
HARGOVIND PATEL	Current Resident	1032 N GLEN CANYON WAY	BREA, CA 92821
ROBBY LEE	Current Resident	1025 N GLEN CANYON WAY	BREA, CA 92821
MICHAEL HOOPER	Current Resident	1050 N GLEN CANYON WAY	BREA, CA 92821
YONG KU LEE & NANCY EUN-KYUNG	Current Resident	242 E ECHO CANYON PL	BREA, CA 92821
KI MAN HAN	Current Resident	266 ECHO CANYON PL	BREA, CA 92821
JAMES VAZQUEZ	Current Resident	225 BROOKSHIRE PL	BREA, CA 92821
NABIL EDWARD KHOURI	Current Resident	249 E BROOKSHIRE PL	BREA, CA 92821
SHERMAN SHIU-FU CHEN	Current Resident	273 E BROOKSHIRE PL	BREA, CA 92821
AUGUST DANIEL COBY	Current Resident	216 E BROOKSHIRE PL	BREA, CA 92821
IGOR & TATYANA ERENBURG	Current Resident	232 E BROOKSHIRE PL	BREA, CA 92821
HWA SOON HYUN	Current Resident	256 E BROOKSHIRE PL	BREA, CA 92821
KEVIN WOOSUNG & DIAN EUNJOO SOHN	Current Resident	280 BROOKSHIRE PL	BREA, CA 92821
JOHN STEVENS	Current Resident	852 N GRAND CANYON RD	BREA, CA 92821
JOHNNY CHEN	Current Resident	876 GRAND CANYON RD	BREA, CA 92821
LYNN AGUILERA	Current Resident	900 N GRAND CANYON RD	BREA, CA 92821
MICHAEL GALLENSTEIN	Current Resident	16 DEERFIELD PL	TRABUCO CANYON, CA 92679
ROBERT & DANA MILLER	Current Resident	314 E CANYON COUNTRY RD	BREA, CA 92821
BRUCE & JACQUELYN EDWARDS	Current Resident	356 E CANYON COUNTRY RD	BREA, CA 92821
BENJAMIN & EMMA MACARAEG	Current Resident	398 E CANYON COUNTRY RD	BREA, CA 92821
SAIL KIM	Current Resident	375 E TRABUCO CANYON WAY	BREA, CA 92821
PATEL LILAVATI N L N REVOC	Current Resident	358 E TRABUCO CANYON WAY	BREA, CA 92821
OMAR & SANA FADEEL	Current Resident	376 E TRABUCO CANYON WAY	BREA, CA 92821
GUY AND FAYE GILBERT	Current Resident	413 E SAND CANYON WAY	BREA, CA 92821
DIANA ENGLER	Current Resident	405 SAND CANYON TRUST	BREA, CA 92821
LI JUI-JUNG	Current Resident	404 E SAND CANYON WAY	BREA, CA 92821
THOMAS & WINNIE KWAN	Current Resident	416 E SAND CANYON WAY	BREA, CA 92821
JIM & DEBBIE	Current Resident	428 E STONE CANYON WAY	BREA, CA 92821
MICHAEL CURRAN	Current Resident	801 N DRIFTWOOD AVE	BREA, CA 92821
CARLOS & LUISA CUEVA	Current Resident	807 N DRIFTWOOD AVE	BREA, CA 92821
DANIEL JHUNG	Current Resident	1093 OAK CANYON WAY	BREA, CA 92821
LORAINE LISCANO	Current Resident	1051 N OAK CANYON WAY	BREA, CA 92821
WILLIAM TILTON	Current Resident	1050 OAK CANYON WAY	BREA, CA 92821
TIEN-EN YEN	Current Resident	410 CANYON COUNTRY RD	BREA, CA 92821
WILLIAM BRODER	Current Resident	426 E CANYON COUNTRY RD	BREA, CA 92821
NEIL OKAZAKI	Current Resident	1025 N SHADOW CANYON RD	BREA, CA 92821
GARY & HEIDI KENDLE	Current Resident	1003 N SHADOW CANYON RD	BREA, CA 92821
WELLS FARGO BANK NA	Current Resident	951 MALIBU CANYON RD	BREA, CA 92821
JAMES & KATHERINE CALKINS	Current Resident	925 MALIBU CANYON RD	BREA, CA 92821
CHEN LI	Current Resident	909 N MALIBU CANYON RD	BREA, CA 92821

ISIS BROS	Current Resident	100 N CITRUS ST NO – 508	WEST COVINA, CA 91791
HONG FENG	Current Resident	916 MALIBU CANYON RD	BREA, CA 92821
FARRELL LIVING	Current Resident	940 N MALIBU CANYON RD	BREA, CA 92821
COLIN WOOD	Current Resident	964 N MALIBU CANYON RD	BREA, CA 92821
SANG KYU SHIM	Current Resident	988 MALIBU CANYON RD	BREA, CA 92821
LAUREN HAINES	Current Resident	1008 N SHADOW CANYON TRUST	BREA, CA 92821
MATTHEW CLYDE GRANT & GABI MEIYING	Current Resident	1005 MALIBU CANYON RD	BREA, CA 92821
DARRYN & ERIN JOHNNIE	Current Resident	1017 N MALIBU CANYON WAY	BREA, CA 92821
DAVID & JANET MELANSON	Current Resident	1053 N MALIBU CANYON RD	BREA, CA 92821
DANIEL & ROBIN LUNDY	Current Resident	1082 N MALIBU CANYON RD	BREA, CA 92821
DONNA CLOUGHEN	Current Resident	1040 MALIBU CANYON RD	BREA, CA 92821
JONG-HWA SON	Current Resident	531 E STONE CANYON WAY	BREA, CA 92821
RANDALL & MARCIA FOWLER	Current Resident	561 E STONE CANYON WAY	BREA, CA 92821
JAMES KOH	Current Resident	580 E STONE CANYON WAY	BREA, CA 92821
BRADLEY & VICTORIA BRIGHAM	Current Resident	17812 NEFF RANCH RD	YORBA LINDA, CA 92886
MARK WILLIAM & CANDIA SEIBLY	Current Resident	530 E STONE CANYON WAY	BREA, CA 92821
JOSEPH HEFNER	Current Resident	500 E STONE CANYON WAY	BREA, CA 92821
STEPHEN & TANIA GREENWOOD	Current Resident	816 N DRIFTWOOD AVE	BREA, CA 92821
JOHN & SANDRA PETERSON	Current Resident	790 DRIFTWOOD AVE	BREA, CA 92821
RICHARD WEBER	Current Resident	343 E BLOSSOM PL	BREA, CA 92821
TERRY GUINDON	Current Resident	23430 ROLLING MEADOWS DR	PERRIS, CA 92570
DOMINIC TRAPASSO	Current Resident	307 E BLOSSOM PL	BREA, CA 92821
STACY CROSBY	Current Resident	255 E BLOSSOM PL	BREA, CA 92821
BREA WOODS APTS LLC	Current Resident	195 W CENTRAL AVE	BREA, CA 92821
ELIZABETH HERNANDEZ	Current Resident	1170 ORANGEWOOD DR	BREA, CA 92821
GLENN & ELIZABETH HALL	Current Resident	1140 ORANGEWOOD DR	BREA, CA 92821
MICHAEL DONAGHY	Current Resident	1120 ORANGEWOOD DR	BREA, CA 92821
RUSSELL & SUSAN JAKUBAUSKAS	Current Resident	2018 UKIAH WAY	UPLAND, CA 91784
TIMOTHY KLING LIVING	Current Resident	1084 ORANGEWOOD DR	BREA, CA 92821
LINDA & DANIEL POORE	Current Resident	1312 BONITA DR	LA HABRA HEIGHTS, CA 90631
STEVEN CRAWFORD & R C	Current Resident	1040 ORANGEWOOD DR	BREA, CA 92821
MARQUIS & LORRAINE MC CRAW	Current Resident	1020 ORANGEWOOD DR	BREA, CA 92821
HANNAH MAE FERRANTE SURVIVORS	Current Resident	1000 ORANGEWOOD DR	BREA, CA 92821
JANE JERRY & KRUEGER	Current Resident	355 W CENTRAL AVE	BREA, CA 92821
HYUNSOOK OH	Current Resident	904 ORANGEWOOD DR	BREA, CA 92821
IRFAN GHAFOUR	Current Resident	910 ORANGEWOOD DR	BREA, CA 92821
MARIA & TIBOR LOSONCZI	Current Resident	928 ORANGEWOOD DR	BREA, CA 92821
JOHN DRAGOS	Current Resident	950 ORANGEWOOD DR	BREA, CA 92821
BRYAN CONRAD	Current Resident	984 ORANGEWOOD DR	BREA, CA 92821
ALFREDO LOPEZ	Current Resident	1165 ORANGEWOOD DR	BREA, CA 92821
ANTHONY KERHIN	Current Resident	1135 ORANGEWOOD DR	BREA, CA 92821
SATYA & BHAVANI KUCHIBHOTLA	Current Resident	1125 PONDEROSA AVE	BREA, CA 92821
SAMUEL KIM	Current Resident	1085 ORANGEWOOD DR	BREA, CA 92821
PAUL & ELENA RYAN	Current Resident	2251 WANDERING LANE	BREA, CA 92821
DEE FOXX	Current Resident	1037 ORANGEWOOD DR	BREA, CA 92821
NICKO LIAUW	Current Resident	997 ORANGEWOOD DR	BREA, CA 92821
CAROL PERSINGER	Current Resident	957 ORANGEWOOD DR	BREA, CA 92821
LEE BENT	Current Resident	927 ORANGEWOOD DR	BREA, CA 92821
GLENN ROLBIECKI	Current Resident	909 ORANGEWOOD DR	BREA, CA 92821
TODD GAMBILL	Current Resident	903 ORANGEWOOD DR	BREA, CA 92821
JEFFREY ALAN & SOON-YA GORDON	Current Resident	1004 MARIPOSA DR	BREA, CA 92821
SHENG & LINDA LIN	Current Resident	1010 MARIPOSA DR	BREA, CA 92821
GUADALUPE & JOSEFINA ROBLES	Current Resident	1020 MARIPOSA DR	BREA, CA 92821
STANLEY MOERBEEK	Current Resident	1080 MARIPOSA DR	BREA, CA 92821
GORDON LEE HOWARD	Current Resident	17290 DRAKE ST	YORBA LINDA, CA 92886
JERRY & MARGARET LOWE	Current Resident	1130 MARIPOSA DR	BREA, CA 92821
CARLOS CHRISTIAN & JILL PAVIOLO	Current Resident	1150 MARIPOSA DR	BREA, CA 92821
THOMAS ALLEN	Current Resident	1190 MARIPOSA DR	BREA, CA 92821
TERANCE & MARCIA DUTHOY	Current Resident	1220 MARIPOSA DR	BREA, CA 92821

SHIRLEY & ROBERT SWENDENER	Current Resident	1250 MARIPOSA DR	BREA, CA 92821
NADA JEANINE TRABOULSI	Current Resident	1270 MARIPOSA DR	BREA, CA 92821
NOEL & CYNTHIA HUGHES	Current Resident	1300 MARIPOSA DR	BREA, CA 92821
TUNG MINH HUYNH	Current Resident	1275 MARIPOSA DR	BREA, CA 92821
LUPE TOVAR	Current Resident	1806 VISTA DEL ORO	FULLERTON, CA 92831
ARMANDO & LILIA MEDRANO	Current Resident	1225 MARIPOSA DR	BREA, CA 92821
BRIAN & SUE YOON	Current Resident	1215 PONDEROSA AVE	BREA, CA 92821
MUNJID ISSA	Current Resident	1245 DRIFTWOOD PL	BREA, CA 92821
MARK & STACY FREEMAN	Current Resident	1249 DRIFTWOOD PL	BREA, CA 92821
MARAIS KATHLEEN DES	Current Resident	1255 DRIFTWOOD PL	BREA, CA 92821
SHARON & THOMAS PAQUETTE	Current Resident	1265 DRIFTWOOD PL	BREA, CA 92821
HENRY WONG	Current Resident	1295 PONDEROSA AVE	BREA, CA 92821
JULIE ANNE ETAL HANGO	Current Resident	1325 PONDEROSA AVE	BREA, CA 92821
MATTHEW MC GILVRAY	Current Resident	1355 HAZELWOOD PL	BREA, CA 92821
MIKE & TERESA CRESCIONE	Current Resident	1369 HAZELWOOD PL	BREA, CA 92821
CHARLES & STACY PURDOM	Current Resident	1375 HAZELWOOD PL	BREA, CA 92821
JOHN KIM	Current Resident	1381 HAZELWOOD PL	BREA, CA 92821
DAVID & ANNE BEHOTEGUY	Current Resident	1395 HAZELWOOD PL	BREA, CA 92821
THERESA HOOGHKIRK	Current Resident	1455 PONDEROSA AVE	BREA, CA 92821
BASSEM NASSAR	Current Resident	1430 PONDEROSA AVE	BREA, CA 92821
CHRISTINE ALLEMAND	Current Resident	1380 PONDEROSA AVE	BREA, CA 92821
JOHNNY PERRY MEDEIROS	Current Resident	1350 PONDEROSA AVE	BREA, CA 92821
STEVEN & MELISSA THOMAS	Current Resident	1320 PONDEROSA AVE	BREA, CA 92821
LEIGH SADDINGTON	Current Resident	1280 PONDEROSA AVE	BREA, CA 92821
DANIEL & EMILY KIEFER	Current Resident	1230 PONDEROSA AVE	BREA, CA 92821
FREE MARGUERITE M	Current Resident	1240 PONDEROSA AVE	BREA, CA 92821
CHUNG HEEE YOON	Current Resident	1236 GRAND CANYON	BREA, CA 92821
CROWDER KENNETH I	Current Resident	1200 GRAND CANYON	BREA, CA 92821
LYONS PATRICK J AND GAIL	Current Resident	1150 GRAND CANYON	BREA, CA 92821
IOANA MIHAILA	Current Resident	1124 GRAND CANYON	BREA, CA 92821
AKHTARBANO RIZVI	Current Resident	1100 GRAND CANYON	BREA, CA 92821
CRAIG & DENISE GEORGIANNA	Current Resident	1068 GRAND CANYON	BREA, CA 92821
SANDRA LAWRENCE	Current Resident	5540 PASEO GILBERTO	YORBA LINDA, CA 92886
JANICE GARCIA	Current Resident	1028 GRAND CANYON	BREA, CA 92821
EUGENIA SANDOIU	Current Resident	1004 GRAND CANYON	BREA, CA 92821
MICHAEL CHIANG	Current Resident	18565 STONEGATE LANE	ROWLAND HEIGHTS, CA 91748
CAROLYN CAMPBELL	Current Resident	17502 SHERBROOK DR	TUSTIN, CA 92780
BILLIE LYNN HENDRIXSON	Current Resident	1002 N EVENING CANYON RD	BREA, CA 92821
MICHELLE LAM	Current Resident	964 N EVENING CANYON RD	BREA, CA 92821
THANH & THUC NGUYEN	Current Resident	1011 GRAND CANYON RD	BREA, CA 92821
M G & B T KIRKPATRICK	Current Resident	997 GRAND CANYON RD	BREA, CA 92821
KYU MO & CHONG HEE YANG	Current Resident	949 GRAND CANYON RD	BREA, CA 92821
GREGORY KERBY	Current Resident	1115 N NIGUEL CANYON WAY	BREA, CA 92821
RYAN AARON RICHARD & CAROLINE NGA	Current Resident	1134 N NIGUEL CANYON WAY	BREA, CA 92821
DAVID HALE	Current Resident	1007 N GLEN CANYON WAY	BREA, CA 92821
LANE & KATHRYN FOLLIOTT	Current Resident	1020 GLEN CANYON WAY	BREA, CA 92821
WAYLIN CHU	Current Resident	1013 N GLEN CANYON WAY	BREA, CA 92821
TONY BELL	Current Resident	1038 N GLEN CANYON WAY	BREA, CA 92821
CHRISTIAN & TARA FISHER	Current Resident	226 ECHO CANYON PL	BREA, CA 92821
OSCAR JR & MONICA GALLEGOS	Current Resident	250 ECHO CANYON PL	BREA, CA 92821
VERONICA MAHER	Current Resident	274 ECHO CANYON PL	BREA, CA 92821
WILLIAM TIMOTHY STAGG	Current Resident	233 E BROOKSHIRE PL	BREA, CA 92821
PERPETUGO & MARIE MIRAFLOR	Current Resident	257 E BROOKSHIRE PL	BREA, CA 92821
SHERMAN SHIU-FU CHEN	Current Resident	1429 ROBERT CT	BREA, CA 92821
AKKERA REDDY	Current Resident	224 E BROOKSHIRE PL	BREA, CA 92821
STELLA CAUSLAND	Current Resident	240 E BROOKSHIRE PL	BREA, CA 92821
SONG JOHN SOON CHUL & SOOK HEE	Current Resident	264 E BROOKSHIRE PL	BREA, CA 92821
MOHAMMAD SAMIR OUSMAN	Current Resident	284 BROOKSHIRE PL	BREA, CA 92821
RYAN & ASHLEY STINSON	Current Resident	860 GRAND CANYON	BREA, CA 92821

JEFFREY RODINE & LENA MIZUTANI	Current Resident	884 N GRAND CANYON	BREA, CA 92821
EFREN NERI	Current Resident	297 E ECHO CANYON PL	BREA, CA 92821
ELIZABETH STARK	Current Resident	279 E ECHO CANYON PL	BREA, CA 92821
MARCIANO & M I MARTINEZ	Current Resident	328 E CANYON COUNTRY RD	BREA, CA 92821
RANDALL SHINTAKU	Current Resident	370 E CANYON COUNTRY RD	BREA, CA 92821
HOWARD CHUDLER	Current Resident	387 TRABUCO CANYON WAY	BREA, CA 92821
JOHN PURPURA	Current Resident	346 E TRABUCO CANYON WAY	BREA, CA 92821
ED NETKA	Current Resident	364 TRABUCO CANYON WAY	BREA, CA 92821
JEFFREY STRAUSS	Current Resident	425 E SAND CANYON WAY	BREA, CA 92821
RANDALL TREBS	Current Resident	409 E SAND CANYON WAY	BREA, CA 92821
JOHN & CHERYL CARR	Current Resident	401 E SAND CANYON WAY	BREA, CA 92821
DOUGLAS MILLER	Current Resident	408 SAND CANYON WAY	BREA, CA 92821
BAHRAM & FARZANEH KHARRAZI	Current Resident	420 E SAND CANYON WAY	BREA, CA 92821
PETER LEMBESIS	Current Resident	432 E STONE CANYON WAY	BREA, CA 92821
STEVEN & LISA SEWELL FAMILY	Current Resident	803 N DRIFTWOOD AVE	BREA, CA 92821
RUTH GALLEGOS	Current Resident	1099 OAK CANYON WAY	BREA, CA 92821
RODGER HUBER	Current Resident	1081 N OAK CANYON WAY	BREA, CA 92821
DAVID ETHINGTON	Current Resident	1082 N OAK CANYON WAY	BREA, CA 92821
WILLIAM TILTON	Current Resident	1051 SITE DRIVE #270	BREA, CA 92821
TIEN-EN YEN	Current Resident	2139 HELOISE WAY	PLACENTIA, CA 92870
DAVID FENG	Current Resident	434 CANYON COUNTRY RD	BREA, CA 92821
SCOTT FUJIOKA	Current Resident	1017 N SHADOW CANYON RD	BREA, CA 92821
DOUGLAS DYSART	Current Resident	975 N MALIBU CANYON RD	BREA, CA 92821
WELLS FARGO BANK NA	Current Resident	4101 WISEMAN BLVD	SAN ANTONIO, TX 78251
GARY STEIN TRUST	Current Resident	917 MALIBU CANYON RD	BREA, CA 92821
CHEN LI	Current Resident	630 LENNOX CT	BREA, CA 92821
GERALD FISHER	Current Resident	900 MALIBU CANYON RD	BREA, CA 92821
BRYAN & VONNA LAUE	Current Resident	924 N MALIBU CANYON RD	BREA, CA 92821
ELIZABETH PRARTNADI & OMAR PRAWITE	Current Resident	948 MALIBU CANYON RD	BREA, CA 92821
GORDON & STACIE SKOTARCZYK	Current Resident	972 N MALIBU CANYON RD	BREA, CA 92821
HANNI HILMAN	Current Resident	1024 SHADOW CANYON RD	BREA, CA 92821
JANE KWOUN	Current Resident	1000 N SHADOW CANYON RD	BREA, CA 92821
TIMOTHY & EILEEN FAULKNER	Current Resident	1001 N MALIBU CANYON WAY	BREA, CA 92821
MICHAEL & WENDY BAKER	Current Resident	1021 N MALIBU CANYON WAY	BREA, CA 92821
JERRY & SHEILA VAN DEUDEKOM	Current Resident	1065 N MALIBU CANYON RD	BREA, CA 92821
ANDREW PARK	Current Resident	1064 MALIBU CANYON RD	BREA, CA 92821
WILLIAM BRAD MCALPIN	Current Resident	1026 N MALIBU CANYON RD	BREA, CA 92821
BENIR & KAMIE RUANO	Current Resident	541 E STONE CANYON WAY	BREA, CA 92821
GAYLE KENAN	Current Resident	571 STONE CANYON WAY	BREA, CA 92821
KUN SOO CHUNG	Current Resident	570 STONE CANYON WAY	BREA, CA 92821
WILLIAM LASSETER	Current Resident	550 E STONE CANYON WAY	BREA, CA 92821
YU-CHU LIU	Current Resident	520 STONE CANYON WAY	BREA, CA 92821
CHRIS & JO PERINE	Current Resident	832 N DRIFTWOOD AVE	BREA, CA 92821
DEMETRI & VERONICA LEMBESIS	Current Resident	808 N DRIFTWOOD AVE	BREA, CA 92821
ORVILLE KIDWELL	Current Resident	799 DRIFTWOOD AVE	BREA, CA 92821
CHRISTOPHER ALAN WOLFS	Current Resident	337 E BLOSSOM PL	BREA, CA 92821
FRANK & DIANNA ZENZOLA	Current Resident	321 E BLOSSOM PL	BREA, CA 92821
GLENN & CAROL OZIMA	Current Resident	301 E BLOSSOM PL	BREA, CA 92821
TOBY HUDDLE FAMILY	Current Resident	235 E BLOSSOM PL	BREA, CA 92821
EZEQUIEL ADAM REYNOS	Current Resident	1160 ORANGEWOOD DR	BREA, CA 92821
ROY REDMAN	Current Resident	1130 ORANGEWOOD DR	BREA, CA 92821
TODD MAC ANALLY	Current Resident	1110 ORANGEWOOD DR	BREA, CA 92821
BRADLEY GAST	Current Resident	1098 ORANGEWOOD DR	BREA, CA 92821
EO CHRISTINE CHUL SOON & JOSEPH SU	Current Resident	1080 ORANGEWOOD DR	BREA, CA 92821
TERRY HALCOM	Current Resident	1060 ORANGEWOOD DR	BREA, CA 92821
SHIH CHIAO TUN	Current Resident	1030 ORANGEWOOD DR	BREA, CA 92821
DERRICK SOOHOO	Current Resident	1014 ORANGEWOOD DR	BREA, CA 92821
JANE JERRY & KRUEGER	Current Resident	1881 SE SKYLINE DR	SANTA ANA, CA 92705
STEVEN DAVIS	Current Resident	906 ORANGEWOOD DR	BREA, CA 92821

TOYOTA YUJI FAMILY REVOC LIVING	Current Resident	912 ORANGEWOOD DR	BREA, CA 92821
MATTHEW & JENNIFER PEWTHERS	Current Resident	932 ORANGEWOOD DR	BREA, CA 92821
ROBERT SALAS	Current Resident	968 ORANGEWOOD DR	BREA, CA 92821
JOSEPH FRANCIS	Current Resident	992 ORANGEWOOD DR	BREA, CA 92821
CASEY & JENNIFER SWINDELL	Current Resident	1155 ORANGEWOOD DR	BREA, CA 92821
ERIC & JANINA PATNO	Current Resident	1125 ORANGEWOOD DR	BREA, CA 92821
HARVEY DRYDEN	Current Resident	1097 ORANGEWOOD DR	BREA, CA 92821
RAUL & GRACIELA BARRERA	Current Resident	1075 ORANGEWOOD DR	BREA, CA 92821
KARLA WALK	Current Resident	1055 ORANGEWOOD DR	BREA, CA 92821
ADHVARYU HITEN	Current Resident	1027 ORANGWOOD DR	BREA, CA 92821
BEN & MARY ORTIZ	Current Resident	983 ORANGEWOOD DR	BREA, CA 92821
BRIAN DINI	Current Resident	943 ORANGEWOOD DR	BREA, CA 92821
JOSEPH LEE BENT	Current Resident	919 ORANGEWOOD DR	BREA, CA 92821
DELBERT & BARBARA SHEPARD	Current Resident	907 ORANGEWOOD DR	BREA, CA 92821
LUIS & MARIA SERNA	Current Resident	901 ORANGEWOOD DR	BREA, CA 92821
SOCORRO RAMIREZ	Current Resident	1006 MARIPOSA DR	BREA, CA 92821
SHENG & LINDA LIN	Current Resident	1564 SAN JUAN DR	BREA, CA 92821
DEANA POPYK	Current Resident	1030 MARIPOSA DR	BREA, CA 92821
DIANE MADELINE AMENDT	Current Resident	1090 MARIPOSA DR	BREA, CA 92821
AIDA WHITE	Current Resident	1110 MARIPOSA DR	BREA, CA 92821
JERRY & MARGARET LOWE	Current Resident	2015 KANOLA RD	LA HABRA HEIGHTS, CA 90631
JOHN & HELEN BYUN	Current Resident	1160 MARIPOSA DR	BREA, CA 92821
TED & BETTY WILLIAMS	Current Resident	1200 MARIPOSA DR	BREA, CA 92821
ANGELO TERRACINA	Current Resident	1230 MARIPOSA DR	BREA, CA 92821
SHIRLEY & ROBERT SWENDENER	Current Resident	PO BOX 3015	BREA, CA 92821
ROY MITCHELL HANKS	Current Resident	1280 MARIPOSA DR	BREA, CA 92821
TIM & DARLA BAULCH	Current Resident	1295 MARIPOSA DR	BREA, CA 92821
JIE YIN	Current Resident	1265 MARIPOSA DR	BREA, CA 92821
JEZIEL & NOHEMY FERNANDEZ	Current Resident	1245 MARIPOSA DR	BREA, CA 92821
EARL & SANDRA DUNHAM	Current Resident	1215 MARIPOSA DR	BREA, CA 92821
SUNG & HYUN BAIK	Current Resident	1225 PONDEROSA AVE	BREA, CA 92821
JOHANNA LUNDGREN	Current Resident	1247 DRIFTWOOD PL	BREA, CA 92821
KAREN HAMMOND	Current Resident	1251 DRIFTWOOD PL	BREA, CA 92821
PHILIP PHIKYU & HEERA LEE	Current Resident	1257 DRIFTWOOD PL	BREA, CA 92821
KENNETH & JEANNETTE WESTPHAL	Current Resident	1275 DRIFTWOOD PL	BREA, CA 92821
ALDO EDMUNDS	Current Resident	1315 PONDEROSA AVE	BREA, CA 92821
SUSAN HAYES TRUST	Current Resident	1335 PONDEROSA AVE	BREA, CA 92821
LARRY & JENNIFER STRONG	Current Resident	1365 HAZELWOOD PL	BREA, CA 92821
GERALDINE MARCUM	Current Resident	1371 HAZELWOOD PL	BREA, CA 92821
CHRISTINA HOROWITZ	Current Resident	1377 HAZELWOOD PL	BREA, CA 92821
CAROL ANN THOMPSON	Current Resident	1383 HAZELWOOD PL	BREA, CA 92821
WILLIAM LARSON	Current Resident	1399 HAZELWOOD PL	BREA, CA 92821
LUCINDA & MICHAEL CROWE	Current Resident	1450 PONDEROSA AVE	BREA, CA 92821
JOSEPH KIN-WING TAM	Current Resident	1400 PONDEROSA AVE	BREA, CA 92821
CHRISTINE ALLEMAND	Current Resident	654 N CLIFFWOOD	BREA, CA 92821
MANUEL CHRIS CASTILLO	Current Resident	1340 PONDEROSA AVE	BREA, CA 92821
WILLIAM VIERRA	Current Resident	1300 PONDEROSA AVE	BREA, CA 92821
LEIGH SADDINGTON	Current Resident	907 CARLSON DR	HUNTINGTON BEACH, CA 9264
MICHAEL BECHER	Current Resident	1220 PONDEROSA AVE	BREA, CA 92821
SCHAEFER MICHAEL	Current Resident	1224 GRAND CANYON	BREA, CA 92821
PERLSON BENNET GORDON	Current Resident	1184 GRAND CANYON	BREA, CA 92821
ERNESTO & SANDRA MIRANDA	Current Resident	1140 GRAND CANYON	BREA, CA 92821
DENNIS & PRISCILLA CHAN	Current Resident	1116 GRAND CANYON	BREA, CA 92821
JOHNATHAN & RUBILYNE GOROSPE	Current Resident	1092 GRAND CANYON	BREA, CA 92821
SEONGSIL YOON	Current Resident	1060 GRAND CANYON	BREA, CA 92821
STEVE SUNG YOO	Current Resident	1044 GRAND CANYON	BREA, CA 92821
DAVID & SHERRY ALLISON	Current Resident	1020 GRAND CANYON	BREA, CA 92821
LISA MATARAZZO	Current Resident	998 GRAND CANYON	BREA, CA 92821
JAMES GOATCHER	Current Resident	1036 N EVENING CANYON RD	BREA, CA 92821

TIMOTHY CHAN	Current Resident	1008 N EVENING CANYON RD	BREA, CA 92821
SOO JIN YU	Current Resident	996 N EVENING CANYON RD	BREA, CA 92821
REGALADO BUENVIADJE	Current Resident	938 N EVENING CANYON RD	BREA, CA 92821
THANH & THUC NGUYEN	Current Resident	14952 MALAGA PLZ	WESTMINSTER, CA 92684
MIKE & LORI NICASSIO	Current Resident	991 GRAND CANYON RD	BREA, CA 92821
LIN JUN	Current Resident	923 GRAND CANYON RD	BREA, CA 92821
ROSWITHA STARK TRUST	Current Resident	1133 N NIGUEL CANYON WAY	BREA, CA 92821
ANTHONY CURIALE	Current Resident	1116 N NIGUEL CANYON WAY	BREA, CA 92821
WILLIAM SHUMARD	Current Resident	1008 N GLEN CANYON WAY	BREA, CA 92821
MICHAEL QUAN	Current Resident	1026 N GLEN CANYON WAY	BREA, CA 92821
THOMAS JONES	Current Resident	1019 N GLEN CANYON WAY	BREA, CA 92821
RODNEY & KATHRYN TODD	Current Resident	1044 N GLEN CANYON WAY	BREA, CA 92821
SELMA FREEMAN	Current Resident	234 E ECHO CANYON PL	BREA, CA 92821
CYNTHIA RHODES REVOC LIVING	Current Resident	258 E ECHO CANYON PL	BREA, CA 92821
MASOUD JAFARI FAMILY	Current Resident	282 E ECHO CANYON PL	BREA, CA 92821
IRA & SUNNY WHITE	Current Resident	2441 E BROOKSHIRE PL	BREA, CA 92821
KENNETH & ANGELA LORENTZEN	Current Resident	265 E BROOKSHIRE PL	BREA, CA 92821
HAINING & TIFFANY FAN	Current Resident	281 E BROOKSHIRE PL	BREA, CA 92821
AKKERA REDDY	Current Resident	13397 GOLD SPRINGS ST	VICTORVILLE, CA 92392
RICHARD I& ELIZABETH AMENDOLA	Current Resident	248 E BROOKSHIRE PL	BREA, CA 92821
JOHN & SHARON CASEY	Current Resident	272 E BROOKSHIRE PL	BREA, CA 92821
SAM MENCHACA	Current Resident	294 E BROOKSHIRE PL	BREA, CA 92821
CHESTER DRAPKOWSKI	Current Resident	868 N GRAND CANYON RD	BREA, CA 92821
SUZANNE ERD	Current Resident	892 N GRAND CANYON RD	BREA, CA 92821
MICHAEL GALLENSTEIN	Current Resident	285 E ECHO CANYON PL	BREA, CA 92821
MARCIA CLARK	Current Resident	300 CANYON COUNTRY RD	BREA, CA 92821
ROBERT LOSEMAN	Current Resident	342 E CANYON COUNTRY RD	BREA, CA 92821
PERINE LOWE FAMILY	Current Resident	384 E CANYON COUNTRY RD	BREA, CA 92821
MITRA NEJAT-BINA	Current Resident	381 E TRABUCO CANYON WAY	BREA, CA 92821
CHARLES GROSCOST	Current Resident	352 E TRABUCO CANYON WAY	BREA, CA 92821
JESSE LLEWELLYN	Current Resident	370 E TRABUCO CANYON WAY	BREA, CA 92821
WILLIAM KUGEL	Current Resident	417 E SAND CANYON WAY	BREA, CA 92821
RANDALL TREBS	Current Resident	P.O.BOX 1628	BREA, CA 92822
WILLIAM THOMAS GUNNING	Current Resident	400 SAND CANYON WAY	BREA, CA 92821
GREGG & DEBORAH BEGELL	Current Resident	412 E SAND CANYON WAY	BREA, CA 92821
KIM NAK HYEON & YU JEONG	Current Resident	424 SAND CANYON WAY	BREA, CA 92821
LINDA & WALT ANDERSEN	Current Resident	436 E STONE CANYON WAY	BREA, CA 92821
MICHAEL CORNFIELD	Current Resident	805 N DRIFTWOOD AVE	BREA, CA 92821
DEBORAH WHITE	Current Resident	1098 N OAK CANYON WAY	BREA, CA 92821
EDWARD ORLOWSKI	Current Resident	1065 N OAK CANYON WAY	BREA, CA 92821
ORTIZ FAMILY	Current Resident	1066 N OAK CANYON WAY	BREA, CA 92821
DEAN WEISS REVOC	Current Resident	402 CANYON COUNTRY RD	BREA, CA 92821
JOHN & SUSAN LAW	Current Resident	418 E CANYON COUNTRY RD	BREA, CA 92821
ROBERT ROY PETERS	Current Resident	442 E CANYON COUNTRY RD	BREA, CA 92821
ALLEN QUIRK	Current Resident	1009 N SHADOW CANYON RD	BREA, CA 92821
PARESH & DIPTIBEN KHATRI	Current Resident	963 N MALIBU CANYON RD	BREA, CA 92821
WILLIAM FURNAS	Current Resident	939 N MALIBU CANYON RD	BREA,CA 92821
GARY STEIN TRUST	Current Resident	18565 YORBA LINDA BLVD	BREA, CA 92821
ISIS BROS	Current Resident	901 N MALIBU CANYON RD	BREA, CA 92821
THOMAS & OLGA MCKELLAR	Current Resident	908 N MALIBU CANYON RD	BREA, CA 92821
ANDREW JR & JEAN CORTY	Current Resident	932 N MALIBU CANYON RD	BREA, CA 92821
HARJASBIR & MALKEET MANN	Current Resident	956 N MALIBU CANYON RD	BREA, CA 92821
PETER YOO	Current Resident	980 N MALIBU CANYON RD	BREA, CA 92821
PETER JAMES MALDONADO & DIANA	Current Resident	1016 SHADOW CANYON RD	BREA, CA 92821
DANA CORBITT	Current Resident	1009 N MALIBU CANYON WAY	BREA, CA 92821
SALAM & RAIDA HAMAD	Current Resident	1013 N MALIBU CANYON WAY	BREA, CA 92821
JAY EVANS	Current Resident	1027 MALIBU CANYON RD	BREA, CA 92821
LEDA POLTI	Current Resident	1096 MALIBU CANYON	BREA, CA 92821
MANUEL JR & SUSAN CAIPO	Current Resident	1054 MALIBU CANYON RD	BREA,CA 92821

LAWRENCE SMITH	Current Resident	521 E STONE CANYON WAY	BREA, CA 92821
ELESHIA CAROL HECKLER	Current Resident	551 E STONE CANYON WAY	BREA, CA 92821
EDGARDO MARQUEZ	Current Resident	581 E STONE CANYON WAY	BREA, CA 92821
BRADLEY & VICTORIA BRIGHAM	Current Resident	560 E STONE CANYON WAY	BREA, CA 92821
WILLIAM PRINDLE	Current Resident	540 E STONE CANYON WAY	BREA, CA 92821
AUGUSTINE & CYNTHIA TRAINO	Current Resident	510 E STONE CANYON WAY	BREA, CA 92821
GLORIA LUNA	Current Resident	824 N DRIFTWOOD AVE	BREA, CA 92821
BRENT & DIANE MARTINEZ	Current Resident	800 DRIFTWOOD AVE	BREA, CA 92821
ROLAND & BEATRIS BONADA	Current Resident	357 E BLOSSOM PL	BREA, CA 92821
TERRY GUINDON	Current Resident	329 E BLOSSOM PL	BREA, CA 92821
PATRICK EUIJOON & SEUNG HEEE PARK	Current Resident	315 E BLOSSOM PL	BREA, CA 92821
DAVID MOTE	Current Resident	275 E BLOSSOM PL	BREA, CA 92821
ALMOND ELLIOTT ROY & ELLIOTT TRUST	Current Resident	215 E BLOSSOM PL	BREA, CA 92821
KATIE & SEAN THOMANN	Current Resident	1180 ORANGEWOOD DR	BREA, CA 92821
DANIEL & VALERIE MURPHY	Current Resident	1150 ORANGEWOOD DR	BREA, CA 92821
ROY REDMAN	Current Resident	P.O. BOX 5014	FULLERTON, CA 92838
RUSSELL & SUSAN JAKUBAUSKAS	Current Resident	1100 ORANGEWOOD DR	BREA, CA 92821
JERALD & DEBRA MONROE	Current Resident	1090 ORANGEWOOD DR	BREA, CA 92821
LINDA & DANIEL POORE	Current Resident	1070 ORANGEWOOD DR	BREA, CA 92821
WILLIAM & TAMI OTSUKA	Current Resident	1050 ORANGEWOOD DR	BREA, CA 92821
SHIH CHIAO TUN	Current Resident	1743 N ARTHUR DR	BREA, CA 92821
VIRGIL BOLES	Current Resident	1010 ORANGEWOOD DR	BREA, CA 92821
STATE OF CALIFORNIA DIVISION OF HWYS	Current Resident	1808 N BATAVIA ST	ORANGE, CA 92865
DOWNEY FUNDING CORP	Current Resident	275 W CENTRAL AVE	BREA, CA 92821
RICARDO & YEZENIA CABIESES	Current Resident	902 ORANGEWOOD DR	BREA, CA 92821
STEVEN WILLIAMS	Current Resident	908 ORANGEWOOD DR	BREA, CA 92821
ROBERT MARTIN WARREN	Current Resident	922 ORANGEWOOD DR	BREA, CA 92821
DAVID SAWYER	Current Resident	940 ORANGEWOOD DR	BREA, CA 92821
HOWARD & MARY PHILLIPS	Current Resident	978 ORANGEWOOD DR	BREA, CA 92821
RALPH & PATRICIA RICHARDSON	Current Resident	1175 ORANGEWOOD DR	BREA, CA 92821
RYAN FELIX	Current Resident	1145 ORANGEWOOD DR	BREA, CA 92821
ANN & JACOB POOZHIKALA	Current Resident	1115 ORANGEWOOD DR	BREA, CA 92821
LINDA MIGUEL	Current Resident	1093 ORANGEWOOD DR	BREA, CA 92821
PAUL & ELENA RYAN	Current Resident	1065 ORANGEWOOD DR	BREA, CA 92821
MARTIN GARZA	Current Resident	1045 ORANGEWOOD DR	BREA, CA 92821
BRETT & LISA SKINNER	Current Resident	1013 ORANGEWOOD DR	BREA, CA 92821
FRANCES & KEITH QUARANTA	Current Resident	977 ORANGEWOOD DR	BREA, CA 92821
CHI MEI CHAN	Current Resident	935 ORANGEWOOD DR	BREA, CA 92821
LUKE & DAVINA FERRY	Current Resident	911 ORANGEWOOD DR	BREA, CA 92821
GEORGE & REMONA SALAS	Current Resident	905 ORANGEWOOD DR	BREA, CA 92821
BHASKAR TATKE	Current Resident	1002 MARIPOSA DR	BREA, CA 92821
MAROUN NTANIOS	Current Resident	1008 MARIPOSA DR	BREA, CA 92821
THOMAS CAPACASA	Current Resident	1012 MARIPOSA DR	BREA, CA 92821
JASON MOORE	Current Resident	1060 MARIPOSA DR	BREA, CA 92821
GORDON LEE HOWARD	Current Resident	1100 MARIPOSA DR	BREA, CA 92821
ANNALISA GOMEZ	Current Resident	1120 MARIPOSA DR	BREA, CA 92821
WILLIAM & SYLVIA CLINE	Current Resident	1140 MARIPOSA DR	BREA, CA 92821
ELMER CLARK	Current Resident	1170 MARIPOSA DR	BREA, CA 92821
STEVE & PENNY BARTOSH	Current Resident	1210 MARIPOSA DR	BREA, CA 92821
DAVID REISS & RENEE REBICH	Current Resident	1240 MARIPOSA DR	BREA, CA 92821
LORI ELLIS	Current Resident	1260 MARIPOSA DR	BREA, CA 92821
JERRY & MARGARET LOWE	Current Resident	1290 MARIPOSA DR	BREA, CA 92821
CATHY ANN MATTHEWS	Current Resident	1285 MARIPOSA DR	BREA, CA 92821
LUPE TOVAR	Current Resident	1255 MARIPOSA DR	BREA, CA 92821
CANDRA VALKO	Current Resident	1235 MARIPOSA DR	BREA, CA 92821
EARL & SANDRA DUNHAM	Current Resident	PO BOX 391491	ANZA, CA 92539
MICHELLE & PATRICK NICKEL	Current Resident	1235 PONDEROSA AVE	BREA, CA 92821
JOHANNA LUNDGREN	Current Resident	10916 PEACH GROVE ST #3	BREA, CA 92821
CORA SMITH	Current Resident	1253 DRIFTWOOD PL	BREA, CA 92821

MICHAEL CALLEJAS FRIAS	Current Resident	1261 DRIFTWOOD PL	BREA, CA 92821
FRANCIS MEIDT & WAIKIU CHAN	Current Resident	1285 DRIFTWOOD PL	BREA, CA 92821
ALDO EDMUNDS	Current Resident	440 DEVONSHIRE AVE	BREA, CA 92821
JEFFREY HILL	Current Resident	1345 PONDEROSA AVE	BREA, CA 92821
DAVID TOTH	Current Resident	1367 HAZELWOOD PL	BREA, CA 92821
JEFFREY & WENDY SIMPSON	Current Resident	1373 HAZELWOOD PL	BREA, CA 92821
RICHARD B FINNIE 2ND	Current Resident	1379 HAZELWOOD PL	BREA, CA 92821
ROBERT & KIMBERLY SCOTT	Current Resident	1385 HAZELWOOD PL	BREA, CA 92821
JIVA & AURICA BRANCOV	Current Resident	1435 PONDEROSA AVE	BREA, CA 92821
RICARDO VILLEGAS	Current Resident	1440 PONDEROSA AVE	BREA, CA 92821
JOSEPH KIN-WING TAM	Current Resident	11719 ELMROCK AVE	BREA, CA 92821
PHYLLIS MERCER	Current Resident	1360 PONDEROSA AVE	BREA, CA 92821
ALICIA FOWERS	Current Resident	1330 PONDEROSA AVE	BREA, CA 92821
DAVID & DEBORAH GROVE	Current Resident	1290 PONDEROSA AVE	BREA, CA 92821
TODD & CHARLANNE MERIZAN	Current Resident	1250 PONDEROSA AVE	BREA, CA 92821
JOHN MC KAY	Current Resident	1200 PONDEROSA AVE	BREA, CA 92821
ROUX DIANNE T	Current Resident	1215 GRAND CANYON	BREA, CA 92821
NAM DONG SOO	Current Resident	1239 GRAND CANYON	BREA, CA 92821
FLORIA ALAN DALE AB LIVING	Current Resident	1171 GRAND CANYON	BREA, CA 92821
ARNOLD & PAMELA HOPKINS	Current Resident	1139 GRAND CANYON	BREA, CA 92821
CHOUDHURI BISHWANATH	Current Resident	1115 GRAND CANYON	BREA, CA 92821
SHEW SHERMAN ETAL	Current Resident	1091 GRAND CANYON	BREA, CA 92821
BURNS FAMILY	Current Resident	1812 ISLAND DRIVE	FULLERTON, CA 92833
MORGAN KARL	Current Resident	431 CLAIRMONT AVE	PLACENTIA, CA 92870
CALIN I & CAMELIA CIOBANU	Current Resident	1003 N EVENING CANYON RD	BREA, CA 92821
DAVID B WALLACE	Current Resident	937 N EVENING CANYON RD	BREA, CA 92821
ELAINE DEE COX	Current Resident	337 SUNCREST CIR	ARCADIA, CA 91007
VINTAGE CREEK SENIOR	Current Resident	855 N BREA BLVD	BREA, CA 92821
EDWIN D WONG	Current Resident	883 N EVENING CANYON RD	BREA, CA 92821
DANIECE CICCHELLLI	Current Resident	859 N EVENING CANYON RD	BREA, CA 92821
MOHAMMED P CHAWLA TRUST	Current Resident	202 E BROOKSHIRE PL	BREA, CA 92821
CONNELLY WILLIAM J	Current Resident	1227 GRAND CANYON	BREA, CA 92821
JUAN ALAS	Current Resident	1187 GRAND CANYON	BREA, CA 92821
NAPLES RAYMOND J	Current Resident	1153 GRAND CANYON	BREA, CA 92821
FERNANDO & ROCIO G SENA	Current Resident	1131 GRAND CANYON	BREA, CA 92821
CULP ORVILLE	Current Resident	1107 GRAND CANYON	BREA, CA 92821
GUPTA & TULI SATYAJIT	Current Resident	1083 GRAND CANYON	BREA, CA 92821
ITMAIZA RIYAD AHMED	Current Resident	1067 GRAND CANYON	BREA, CA 92821
CHRISTOPHER LOUIS REYNOZA	Current Resident	1035 N. EVENING CANYON RD	BREA, CA 92821
BRADLEY W UHLMANSIEK & KATHLEEN D	Current Resident	989 N EVENING CANYON RD	BREA, CA 92821
SIMJEE RASHEED	Current Resident	921 EVENING CANYON RD	BREA, CA 92821
CHRISTOPHER N HAGY	Current Resident	891 N EVENING CANYON RD	BREA, CA 92821
JOHN Y S LIN	Current Resident	103 W CENTRAL AVE	BREA, CA 92821
SCOT G MOORE	Current Resident	875 N EVENING CANYON RD	BREA, CA 92821
DARRYL A JONES	Current Resident	851 N EVENING CANYON RD	BREA, CA 92821
ROBERT E. BRAIN	Current Resident	665 E. D. ST.	WILMINGTON, CA 90744
LEVERING ROBERT T FAMILY	Current Resident	1203 GRAND CANYON	BREA, CA 92821
CHANG JINGFA & FEN-ING L	Current Resident	1147 GRAND CANYON	BREA, CA 92821
SEO EDWARD	Current Resident	1123 GRAND CANYON	BREA, CA 92821
PAPADOPOL FLORENTIN	Current Resident	1099 GRAND CANYON	BREA, CA 92821
BURNS FAMILY	Current Resident	1075 GRAND CANYON	BREA, CA 92821
MORGAN KARL	Current Resident	1059 N. EVENING CANYON RD	BREA, CA 92821
BAINTER DAVID E	Current Resident	1017 EVENING CANYON RD	BREA, CA 92821
FRANK & HUILAN Y CAO	Current Resident	963 N EVENING CANYON RD	BREA, CA 92821
ELAINE DEE COX	Current Resident	905 EVENING CANYON RD	BREA, CA 92821
JOHN Y S LIN TRUST	Current Resident	42 GRASSLAND	IRVINE, CA 92620
SOHRA Z REVOC CHAMADIA LIVING	Current Resident	867 N EVENING CANYON RD	BREA, CA 92821
DARRYL A JONES	Current Resident	1146 STEELE DR	YORBA LINDA, CA 92886

APPENDIX D
2019 UPDATED NOP/IS WRITTEN COMMENTS AND CARDS

Salazar, Cindy

From: Daniece Cicchelli <daniececic@sbcglobal.net>
Sent: Saturday, June 8, 2019 7:02 PM
To: Salazar, Cindy
Cc: christinem@ci.brea.ca.us
Subject: PROPOSED widening of 1.4 miles of Brea Canyon Road
Attachments: image1.png; ATT00001.txt

Good day
I attended the recent meeting about the subject and spoke at it as well as submitting a written comment form.

Following up and copying our mayor.

The majority of speakers at that meeting were very much opposed to this project. Many many reasons were given. It will not solve any traffic problems- it will only push them 1.4 miles up the road where the jam will then be as the road once again reduce to two lanes. The fact that the current speed limit is 55 does not make sense - we were told that speed limits are changed when a survey is done to see what speed 85% of the traffic travels at. It doesn't matter if 95% of the traffic on the canyon road does 55 - it's TOO fast for that road.

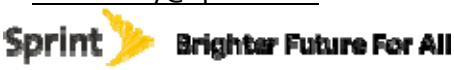
I would like to address also the naming of streets, etc. State College Blvd (two striped lanes each direction - speed limit 40 between Lambert and. Brea Blvd), Imperial Highway (2-3 striped lanes each direction - speed limit 45 mostly), Evening Canyon Road (where I live) one unstriped lane each direction, speed limit 25. Notice the size and configuration of Blvd, Highway, Road....etc

Salazar, Cindy

From: Laky, Tibor F Sr [CTO] <Tibor.X.Laky@sprint.com>
Sent: Wednesday, May 29, 2019 2:54 PM
To: Salazar, Cindy
Cc: Barvick, Joe J [Terra2 Contractor for Sprint]
Subject: Orange County Public Works notice for Brea Boulevard/Brea Canyon Road Widening Project (IP 17-046) SCJ # 2017051005
Attachments: Notice.pdf

Ms Salazar,
The attached notice was received in Sprint's corporate offices in Overland Park, KS. Such notices should be sent to me, preferably via email. Please have the county's mailing list changed back to sending these to me. I received this today for a meeting today. Fortunately, I am pretty sure that this project does not conflict with any of Sprint's facilities.

Tibor Laky
Engineer III Outside Plant Engineering - West
M: 949-842-9315
O: 714-617-9598
2592 Dupont Drive, Irvine, CA 92612
E: tibor.x.laky@sprint.com



OC Public Works
Integrity, Accountability, Service, Trust
Shane L. Silsby, Director

RECEIVED
MAY 22 2019
SPRINT LAW DEPT.

NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT AND NOTICE OF A PUBLIC SCOPING MEETING

DATE: May 17, 2019
SUBJECT: Notice of Preparation of a Draft Environmental Impact Report (EIR No. 628) and Public Scoping Meeting
PROJECT: Brea Boulevard/Brea Canyon Road Widening Project (IP 17-046) SCH # 2017051005
APPLICANT: County of Orange, OC Public Works

Public Scoping Meeting: The County will host a public scoping meeting to be held as noted below to provide an update to the project and to solicit comments relative to the content of the information to be analyzed in the Draft Environmental Impact Report (Draft EIR).

Date: May 29, 2019
Time: 6:00 p.m. to 7:30 p.m.
Location: Mariposa Elementary School Cafeteria
1111 West Mariposa Drive
Brea, CA 92821
(see attached map)

Due to the extended period of time that has elapsed and updated project scope since the Notice of Preparation (NOP) of a draft EIR was distributed on May 2, 2017 and public scoping meeting held on May 24, 2017, an updated NOP and Initial Study has been prepared and another public scoping meeting will be held.

Public input regarding the appropriate topics for analysis to be included within the EIR is being sought. In order for your concerns to be incorporated into the Draft EIR, we need to know your views as to the scope and content of the environmental information in connection with the Brea Canyon Road Widening Project (Project). Pursuant to CEQA Guidelines Section 15082(b), all comments must be received as soon as possible but ***not later than 30 days after receipt of this notice.*** The comment period for this Notice is May 20, 2019 to June 19, 2019. You may provide your comments at the Scoping Meeting or by submitting them in writing to the address at the bottom of this Notice.

Under CEQA Guidelines Section 15060(d), the County of Orange, as lead agency, has determined that an Draft EIR would be required. Under CEQA Guidelines Section 15063(c)(3), the Initial Study prepared for the Project will assist in focusing the Draft EIR on the effects determined to be significant. Upon completion of the Draft EIR, that document will be made available for public review and comment. There will be public notice regarding its availability at that time. Following the public review period for the Draft EIR, responses to all public and public agency comments received will be prepared and the project will be scheduled for a noticed public hearing before the Orange County Planning Commission.

Project Description and Location: The OCPW has identified the need to widen Brea Boulevard/Brea Canyon Road (hereafter referred to as Brea Canyon Road) consistent with the Orange County Master Plan of Arterial Highways (MPAH). The Brea Canyon Road Widening Project (Project) is located partially in the City of Brea, from Canyondale Drive to the north City limit, and partially in unincorporated Orange County, from the north City limit to approximately 1,200 feet northeast of Tonner Canyon Road, a total

length of approximately 7,600 linear feet or 1.4 miles. In addition, approximately 1,100 feet of Brea Canyon Channel from 600 feet north (upstream) of Central Avenue to 1,700 feet north (upstream) of Central Avenue within the City of Brea.
Refer to the attached figures.

Brea Canyon Road would be widened from two to four lanes (two lanes each direction) with 11 foot minimum width lanes, shoulders that would vary from 6-foot to 10-foot wide that could serve as bike lanes, and a raised median that varies from 12- foot to 14-foot or a 6-foot wide median with a concrete barrier.

The Project is intended to address safety by improving the design of existing curves within the Project and reducing the potential for motorist conflicts. Additionally, the Project is intended to address traffic congestion during the A.M. and P.M. peak hours and is expected to enhance the Level of Service (LOS) from an existing LOS F to LOS A, substantially improving traffic flow through Brea Canyon Road. This would be accomplished by widening Brea Canyon Road, installing a new traffic signal at the intersection of Brea Canyon Road and Tonner Canyon Road, and installing a new traffic signal approximately 1,200 feet north of Canyon Country Road to provide a safe left turn on Brea Boulevard for the oil field operator.

Widening and safety improvements of the roadway would also require replacing three bridges over Brea Canyon Channel, improvements to Brea Canyon Channel, improving and extending various drainage crossings and utility bank crossings, relocating utilities and oilfield-related equipment (e.g., power transmission poles, oil lines, oil wells, telephone duct banks, etc.), replacing the existing traffic signal at Brea Canyon Road and Canyon Country Road, and multiple retaining walls, the highest of which is over 60 feet. Some right-of-way (R/W) acquisition and driveway access point modification (e.g., driveway relocation or reconstruction) would also be required.

Construction is expected to last approximately 4.5 years and is anticipated to begin in the year 2020.

The Notice of Preparation with Initial Study IP 17-046 is available for review on the County's website: http://www.ocpublicworks.com/ds/planning/projects/4th_district/brea_canyon_road_widening_project

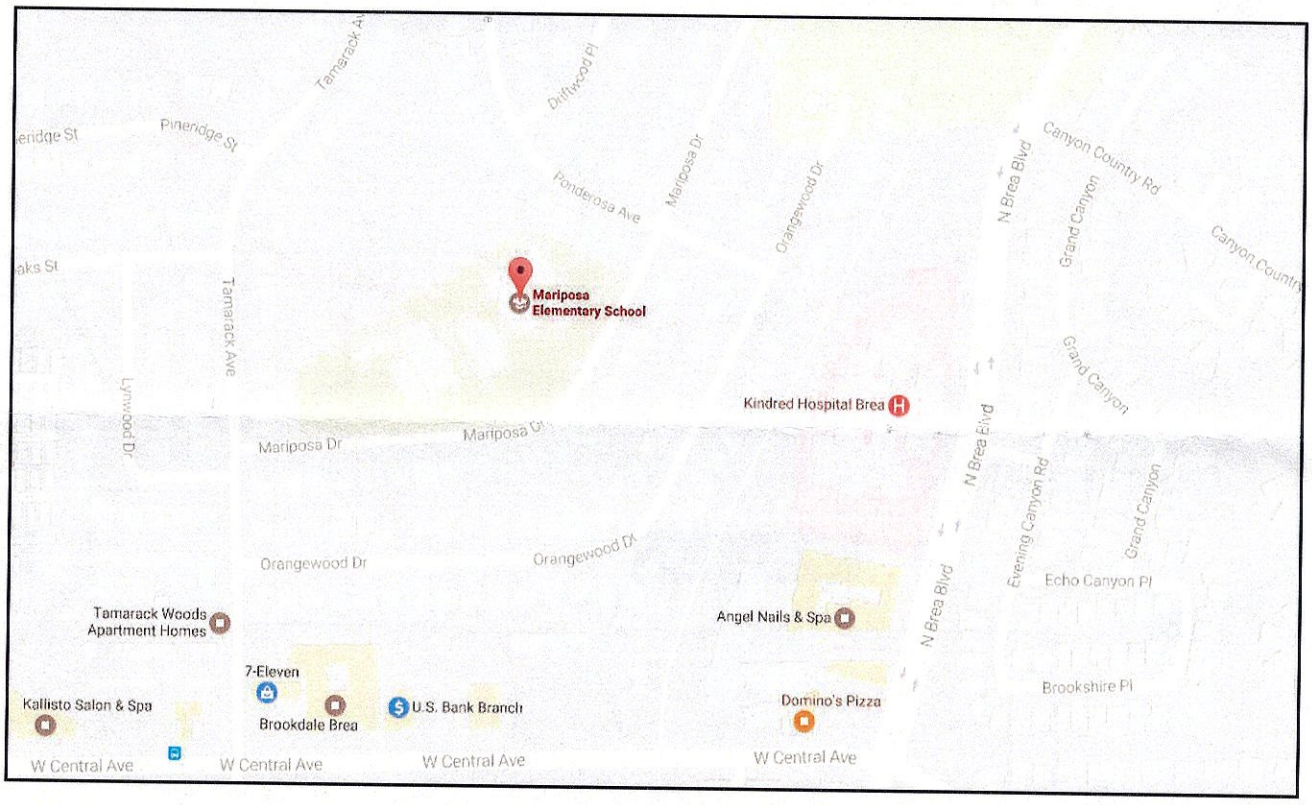
If you have any questions or need additional information, please contact Cindy Salazar at (714) 667-8870. Submit written comments to the following email address: Cindy.Salazar@ocpw.ocgov.com. The mailing address is OC Development Services/Planning, 300 N. Flower Street, Santa Ana, CA 92703.

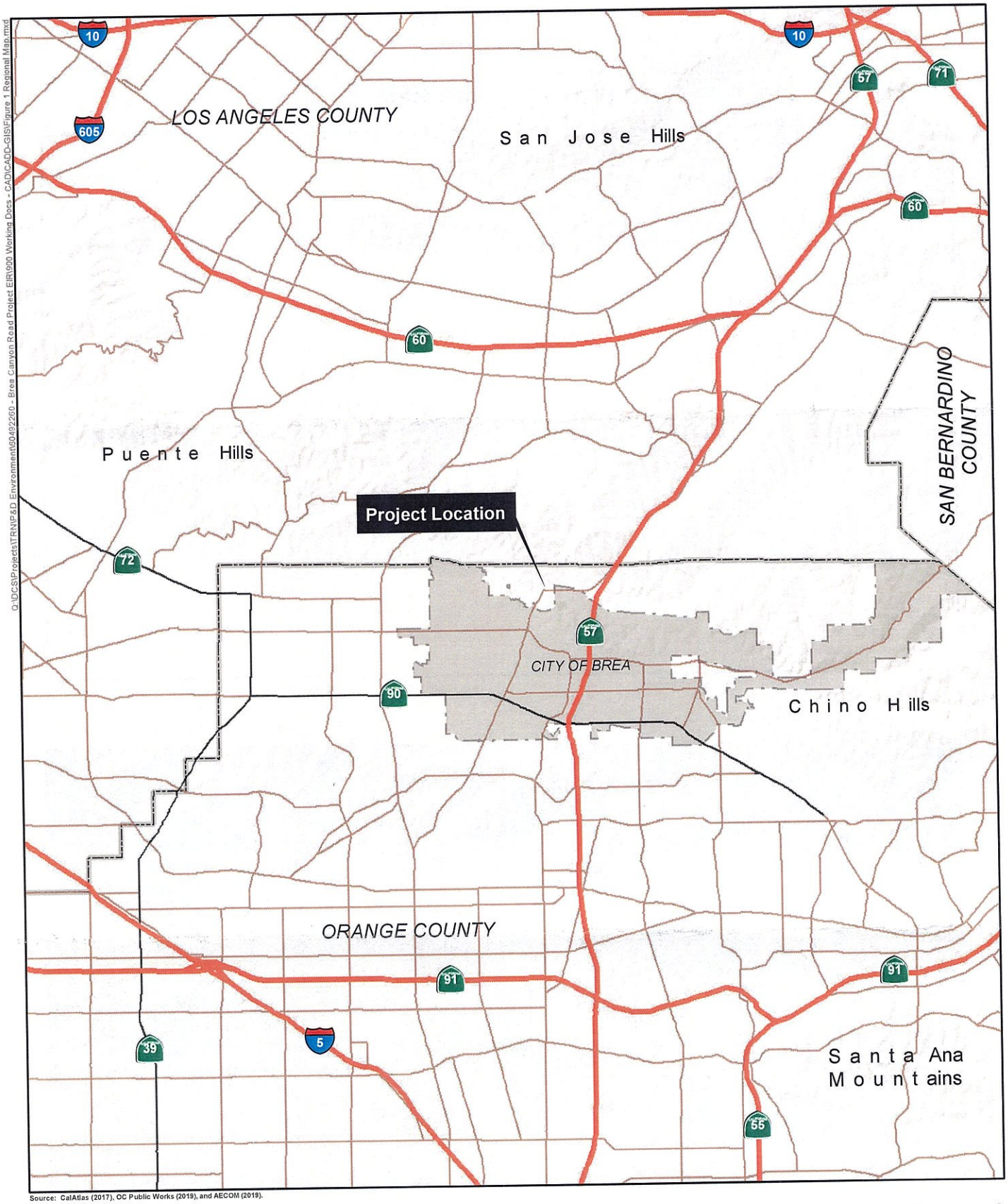
Submitted by: _____

Name: Cindy Salazar, Senior Planner
OC Public Works, OC Development Services/Planning

Attachment: Location Maps

Mariposa Elementary School





Source: CalAtlas (2017), OC Public Works (2019), and AECOM (2019).

Scale 1 : 126720
1" = 2 miles

0 1 2 4 Miles

Figure 1
Regional Map

Brea Boulevard/Brea Canyon Road Widening Project

Eagle Aerial Imaging (2015), OC Public Works (2019), and AECOM (2019).

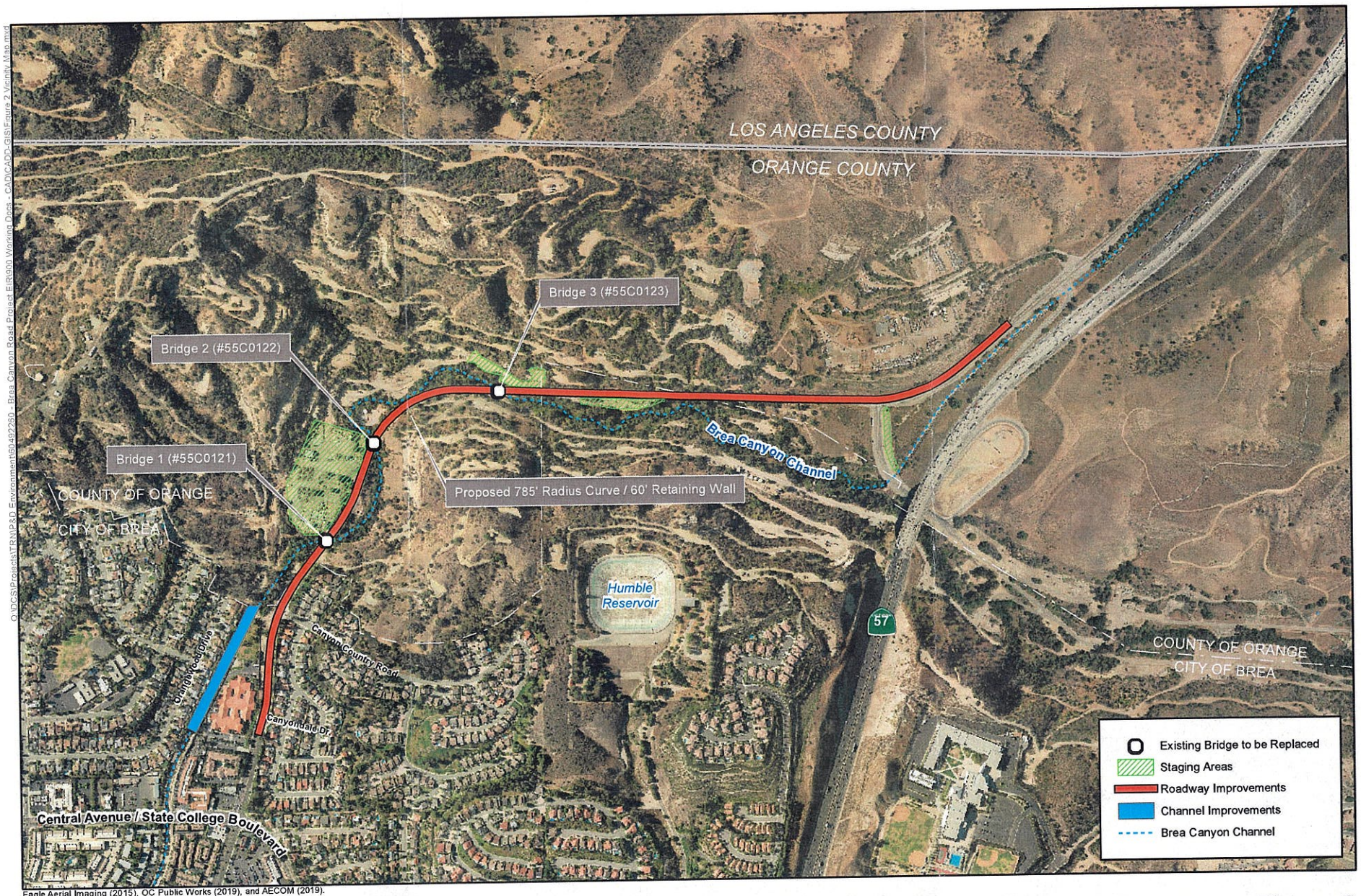
Q:\DGS\Projects\TRNP&D Environment\60492260 - Brea Canyon Road Project FIR\900 Working Docs - CAD\CADD GIS\Figure 2 Vicinity Map.mxd

Scale 1 : 12,000
1" = 1,000 feet

0 500 1,000 2,000 3,000 Feet

Figure 2
Vicinity Map

Brea Boulevard/Brea Canyon Road Widening Project



Eagle Aerial Imaging (2015), OC Public Works (2019), and AECOM (2019).

Scale 1 : 12,000
1" = 1,000 feet

0 500 1,000 2,000 3,000 Feet

Figure 3
Proposed Project

Brea Boulevard/Brea Canyon Road Widening Project

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691 Phone (916) 373-3710
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov
Twitter: @CA_NAHC

RECEIVED
JUN 10 2019
COUNTY OF ORANGE

June 7, 2019

Cindy Salazar
Orange County
300 North Flower Street
Santa Ana, CA 92703

RE: SCH# 2017051005 Brea Canyon Road Widening Project, Orange County

Dear Ms. Salazar:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
   a. A brief description of the project.
   b. The lead agency contact information.
   c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
   d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).
   a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
   a. Alternatives to the project.
   b. Recommended mitigation measures.
   c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
   a. Type of environmental review necessary.
   b. Significance of the tribal cultural resources.
   c. Significance of the project's impacts on tribal cultural resources.
   d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
   a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
   b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:
    a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
    b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:
    a. Avoidance and preservation of the resources in place, including, but not limited to:
        i. Planning and construction to avoid the resources and protect the cultural and natural context.
        ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
    b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
        i. Protecting the cultural character and integrity of the resource.
        ii. Protecting the traditional use of the resource.
        iii. Protecting the confidentiality of the resource.
    c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
    d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).
    e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
    f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
    a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
    b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
    c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18.. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
    b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
    a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
    b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
    a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
    b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
    c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my

email address: Steven.Quinn@nahc.ca.gov.

Sincerely,

for Steven Quinn
Associate Governmental Program Analyst

cc: State Clearinghouse

Salazar, Cindy

From: Ditmar,Jolene M <JDitmar@mwdh2o.com>
Sent: Wednesday, June 19, 2019 1:29 PM
To: Salazar, Cindy
Subject: Metropolitan Water District of Southern California comment letter for the Notice of Preparation of Brea Boulevard/Brea Canyon Road Widening Project
Attachments: Brea Blvd & Cny NOP Comment Letter.pdf

Dear Cindy Salazar,
Please see the attached comment letter from the Metropolitan Water District of Southern California on the Notice of Preparation of a Draft Environmental Impact Report (EIR No. 628) and Public Scoping Meeting for the Brea Boulevard/Brea Canyon Road Widening Project. We appreciate the opportunity to provide input to your planning process and we look forward to receiving future documentation and plans for this project.
Best regards,

Jolene Ditmar
Assistant Environmental Specialist I
Environmental Planning Section
The Metropolitan Water District of Southern California
Email: JDitmar@mwdh2o.com
Phone: 213-217-6184

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THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

Office of the General Manager

June 17, 2019

VIA EMAIL AND USPS

Ms. Cindy Salazar
Senior Planner
OC Public Works
OC Development Services/Planning
300 N. Flower Street
Santa Ana, CA 92703

Dear Ms. Salazar:

Notice of Preparation
of a Draft Environmental Impact Report (EIR No. 628) and Public Scoping Meeting

The Metropolitan Water District of Southern California (Metropolitan) has reviewed the Notice of Preparation of a Draft Environmental Impact Report (EIR No. 628) and Public Scoping Meeting for the Brea Boulevard/Brea Canyon Road Widening Project. The proposed project consists of widening Brea Boulevard/Brea Canyon Road by adding two 11 foot lanes, 6-10 foot shoulders and a median ranging from 6-14 foot to Brea Canyon Road. The Project intends to address peak hour traffic congestion by enhancing the Level of Service. The Project will also address safety concerns by improving the design of existing curves and installing traffic signals at Tonner Canyon Rd and 1,200 feet north of Canyon County Road. The improvements will require the replacement of three bridges over Brea Canyon Channel, the improvement and extension of various drainage and utility bank crossings, relocation of utilities and oilfield related equipment, replacement of traffic signals and retaining walls, right of way acquisition and driveway access modification. The County of Orange is the CEQA Lead Agency. This letter contains Metropolitan's comments as a potentially affected public agency.

Metropolitan is a public agency and regional water wholesaler. It is comprised of 26 member public agencies, serving approximately 19 million people in portions of six counties in Southern California, including Orange County. Metropolitan's mission is to provide its 5,200 square mile service area with adequate and reliable supplies of high-quality water to meet present and future needs in an environmentally and economically responsible way.

Metropolitan owns and operates the 36 inch-inside-diameter Orange County Feeder pipeline in the project area. The Orange County Feeder is located within a Metropolitan easement and distributes treated water (drinking water) from the F. E. Weymouth Water Treatment Plant in La Verne to Orange County.

Based on a review of the proposed project boundaries, the project has the potential to impact Metropolitan's facilities. Metropolitan must be allowed to maintain its rights-of-way and requires unobstructed access to its facilities in order to maintain and repair its system. In order to avoid potential conflicts with Metropolitan's facilities and rights-of-way, we require that any design plans for any activity in the area of Metropolitan's pipelines or facilities be submitted for our review and written approval. Metropolitan will not permit procedures that could subject the pipeline to excessive vehicle, impact or vibratory loads. Any future design plans associated with this project should be submitted to the attention of Metropolitan's Substructures Team. Approval of the project should be contingent on Metropolitan's approval of design plans for portions of the proposed project that could impact its facilities.

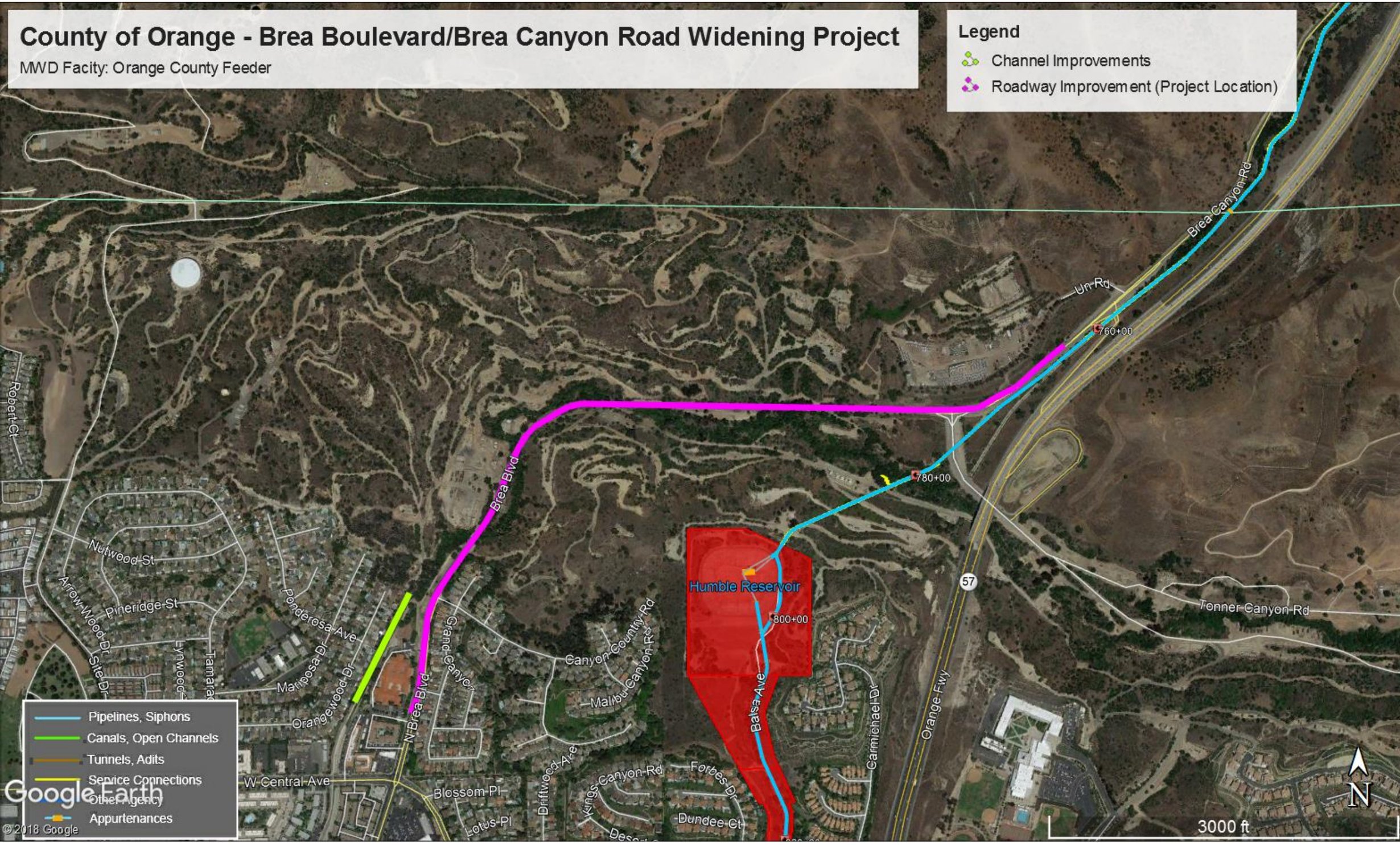
Detailed prints of drawings of Metropolitan's pipelines and rights-of-way may be obtained by calling Metropolitan's Substructures Information Line at (213) 217-7663. To assist the applicant in preparing plans that are compatible with Metropolitan's facilities and easements, attached are "Guidelines for Improvements and Construction Projects Proposed in the Area of Metropolitan's Facilities and Rights-of-Way". Please note that all submitted designs or plans must clearly identify Metropolitan's facilities and rights-of-way.

We appreciate the opportunity to provide input to your planning process and we look forward to receiving future documentation and plans for this project. For further assistance, please contact Ms. Jolene Ditmar at (213) 217-6184.

Very truly yours,

Sean Carlson
Interim Team Manager, Environmental Planning Section

JD:jd
SharePoint\Brea Boulevard-Brea Canyon Road Widening Project_NOP Comment Letter


County of Orange - Brea Boulevard/Brea Canyon Road Widening Project
MWD Facity: Orange County Feeder
Legend
Channel Improvements
Roadway Improvement (Project Location)
Brea Canyon Rd
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780+00
800+00
Humble Reservoir
Brea Blvd
N Brea Blvd
Grand Canyon
Canyon Country Rd
Malibu Canyon Rd
Batsa Ave
Orange Fwy
57
Tonner Canyon Rd
Carmichael Dr
Forbes Dr
Kings Canyon Rd
Driftwood Ave
Dundee Ct
Blossom Pl
Lotus Pl
W Central Ave
Orangewood Dr
Mariposa Dr
Ponderosa Ave
Pineridge St
Nutwood St
Arrow Wood Dr
Robert Ct
Pipelines, Siphons
Canals, Open Channels
Tunnels, Adits
Service Connections
Other Agency
Appurtenances
Google Earth
© 2018 Google
3000 ft
N

Guidelines for Improvements and Construction Projects Proposed in the Area of Metropolitan's Facilities and Rights-of-Way

July 2018

Prepared By:
The Metropolitan Water District of Southern California
Substructures Team, Engineering Services
700 North Alameda Street
Los Angeles, California 90012

Copyright © 2018 by The Metropolitan Water District of Southern California.

Additional Copies: To obtain a copy of this document, please contact the Engineering Services Group, Substructures Team.

Disclaimer

Metropolitan assumes no responsibility for the accuracy of the substructure information herein provided. The user assumes responsibility for verifying substructure locations before excavating and assumes all liability for damage to Metropolitan's facilities as a result of such excavation. Additionally, the user is cautioned to conduct surveys and other field investigations as deemed prudent, to assure that project plans are correct. The appropriate representative from Metropolitan must be contacted at least two working days, before any work activity in proximity to Metropolitan's facilities.

It generally takes 30 days to review project plans and provide written responses. Metropolitan reserves the right to modify requirements based on case-specific issues and regulatory developments.

PUBLICATION HISTORY:

Initial Release	*July 2018*

Table of Contents

1.0 GENERAL INFORMATION 1
1.1 Introduction 1
1.2 Submittal and Review of Project Plans/Utilities and Maps 1
1.3 Identification of Metropolitan's Facilities and Rights-of-Way 3
2.0 General Requirements 3
2.1 Vehicular Access 3
2.2 Fences 3
2.3 Driveways and Ramps 3
2.4 Walks, Bike Paths, and Trails 3
2.5 Clear Zones 4
2.6 Slopes 4
2.7 Structures 4
2.8 Protection of Metropolitan Facilities 4
2.9 Potholing of Metropolitan Pipelines 4
2.10 Jacked Casings or Tunnels 4
3.0 Landscaping 5
3.1 Plans 5
3.2 Drought-Tolerant Native and California Friendly Plants 5
3.3 Trees 5
3.4 Other Vegetation 6
3.5 Irrigation 6
3.6 Metropolitan Vehicular Access 6
4.0 General Utilities 6
4.1 Utility Structures 6
4.2 Utility Crossings 6
4.3 Longitudinal Utilities 7
4.4 Underground Electrical Lines 7
4.5 Fiber Optic Lines 7
4.6 Overhead Electrical and Telephone Lines 7
4.7 Sewage Disposal Systems 7
4.8 Underground Tanks 8
5.0 Specific Utilities: Non-Potable Utility Pipelines 8
6.0 Cathodic Protection/Electrolysis Test Stations 8
6.1 Metropolitan Cathodic Protection 8
6.2 Review of Cathodic Protection Systems 8
7.0 Drainage 9
7.1 Drainage Changes Affecting Metropolitan Rights-of-Way 9
7.2 Metropolitan's Blowoff and Pumpwell Structures 9
8.0 Grading and Settlement 9

Table of Contents

8.1 Changes in Cover over Metropolitan Pipelines 9
8.2 Settlement 9

9.0 Construction Equipment 10
9.1 Review of Proposed Equipment 10
9.2 Equipment Restrictions 10
9.3 Vibratory Compaction Equipment 10
9.4 Equipment Descriptions 10

10.0 Excavations Close to Metropolitan Facilities 11
10.1 Shoring Design Submittal 11
10.2 Shoring Design Requirements 11

11.0 Support of Metropolitan Facilities 11
11.1 Support Design Submittal 11
11.2 Support Design Requirements 11

12.0 Backfill 12
12.1 Metropolitan Pipeline Not Supported 12
12.2 Metropolitan Pipeline Partially Exposed 12
12.3 Metropolitan Cut and Cover Conduit on Colorado River Aqueduct (CRA) 12

13.0 Piles 13
13.1 Impacts on Metropolitan Pipelines 13
13.2 Permanent Cast-in-place Piles 13

14.0 Protective Slabs for Road Crossings Over Metropolitan Pipelines 13

15.0 Blasting 13

16.0 Metropolitan Plan Review Costs, Construction Costs and Billing 14
16.1 Plan Review Costs 14
16.2 Cost of Modification of Facilities Performed by Metropolitan 14
16.3 Final Billing 14

17.0 Street Vacations and Reservation of Easements for Metropolitan 14

18.0 Metropolitan Land Use Guidelines 14

19.0 Compliance with Environmental Laws and Regulations 15

20.0 Paramount Rights / Metropolitan's Rights within Existing Rights-of-Way 17

21.0 Disclaimer and Information Accuracy 17

Table of Contents

Table 1: General Guidelines for Pipeline Separation between Metropolitan's Pipeline[1] and Sanitary Sewer[2] or Hazardous Fluid Pipeline[3].....18

Table 2: General Guidelines for Pipeline "Separation between Metropolitan's Pipeline[1] and Storm Drain and/or Recycled Water[2] 19

Table 3: General Guidelines for Pipeline "Separation[1] between Metropolitan's Pipeline and Recycled Water[2,4] Irrigationsm,.....20

Figure 1: AASHTO H-20 Loading.....21

Figure 2: Drawing SK-1.....22

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1.0 GENERAL INFORMATION

Note: Underground Service Alert at 811 must be notified at least two working days before excavating in proximity to Metropolitan's facilities.

1.1 Introduction

These guidelines provide minimum design and construction requirements for any utilities, facilities, developments, and improvements, or any other projects or activities, proposed in or near Metropolitan Water District of Southern California (Metropolitan) facilities and rights-of-way. Additional conditions and stipulations may also be required depending on project and site specific conditions. Any adverse impacts to Metropolitan's conveyance system, as determined by Metropolitan, will need to be mitigated to its satisfaction.

All improvements and activities must be designed so as to allow for removal or relocation at builder or developer expense, as set forth in the paramount rights provisions of Section 20.0. Metropolitan shall not be responsible for repair or replacement of improvements, landscaping or vegetation in the event Metropolitan exercises its paramount rights powers.

1.2 Submittal and Review of Project Plans/Utilities and Maps

Metropolitan requires project plans/utilities be submitted for all proposed activities that may impact Metropolitan's facilities or rights-of-way. Project plans shall include copies of all pertinent utilities, sewer line, storm drain, street improvement, grading, site development, landscaping, irrigation and other plans, all tract and parcel maps, and all necessary state and federal environmental documentation. Metropolitan will review the project plans and provide written approval, as it pertains to Metropolitan's facilities and rights-of-way. Written approval from Metropolitan must be obtained, prior to the start of any activity or construction in the area of Metropolitan's facilities or rights-of-way. Once complete project plans and supporting documents are submitted to Metropolitan, it generally takes 30 days to review and to prepare a detailed written response. Complex engineering plans that have the potential for significant impacts on Metropolitan's facilities or rights-of-way may require a longer review time.

Project plans, maps, or any other information should be submitted to Metropolitan's Substructures Team at the following mailing address:

Attn: Substructures Team
The Metropolitan Water District of Southern California
700 North Alameda St.
Los Angeles, CA 90012

General Mailing Address: **P.O. Box 54153**
Los Angeles, CA 90054-0153

Email: EngineeringSubstructures@mwdh2o.com

For additional information, or to request prints of detailed drawings for Metropolitan's facilities and rights-of-way, please contact Metropolitan's Substructures Team at 213-217-7663 or EngineeringSubstructures@mwdh2o.com.

1.3 Identification of Metropolitan's Facilities and Rights-of-Way

Metropolitan's facilities and rights-of-way must be fully shown and identified as Metropolitan's, with official recording data, on the following:

A. All applicable plans

B. All applicable tract and parcel maps

Metropolitan's rights-of-ways and existing survey monuments must be tied dimensionally to the tract or parcel boundaries. Metropolitan's Records of Survey must be referenced on the tract and parcel maps with the appropriate Book and Page.

2.0 General Requirements

2.1 Vehicular Access

Metropolitan must have vehicular access along its rights-of-way at all times for routine inspection, patrolling, operations, and maintenance of its facilities and construction activities. All proposed improvements and activities must be designed so as to accommodate such vehicular access.

2.2 Fences

Fences installed across Metropolitan's rights-of-way must include a 16-foot-wide gate to accommodate vehicular access by Metropolitan. Additionally, gates may be required at other specified locations to prevent unauthorized entry into Metropolitan's rights-of-way.

All gates must accommodate a Metropolitan lock or Knox-Box with override switch to allow Metropolitan unrestricted access. There should be a minimum 20-foot setback for gates from the street at the driveway approach. The setback is necessary to allow Metropolitan vehicles to safely pull off the road prior to opening the gate.

2.3 Driveways and Ramps

Construction of 16-foot-wide commercial-type driveway approaches is required on both sides of all streets that cross Metropolitan's rights-of-way. Access ramps, if necessary, must be a minimum of 16 feet wide.

There should be a minimum 20-foot setback for gates from the street at the driveway approach. Grades of ramps and access roads must not exceed 10 percent; if the slope of an access ramp or road must exceed 10 percent due to topography, then the ramp or road must be paved.

2.4 Walks, Bike Paths, and Trails

All walkways, bike paths, and trails along Metropolitan's rights-of-way must be a minimum 12-foot wide and have a 50-foot or greater radius on all horizontal curves if also used as Metropolitan's access roads. Metropolitan's access routes, including all walks and drainage facilities crossing the access routes, must be constructed to American Association of State Highway and Transportation Officials (AASHTO) H-20 loading standards (see Figure 1). Additional requirements will be placed on equestrian trails to protect the water quality of Metropolitan's pipelines and facilities.

2.5 Clear Zones

A 20-foot-wide clear zone is required to be maintained around Metropolitan's manholes and other above-ground facilities to accommodate vehicular access and maintenance. The clear zone should slope away from Metropolitan's facilities on a grade not to exceed 2 percent.

2.6 Slopes

Cut or fill slopes proposed within Metropolitan's rights-of-way must not exceed 10 percent. The proposed grade must not worsen the existing condition. This restriction is required to facilitate Metropolitan use of construction and maintenance equipment and allow uninhibited access to above-ground and below-ground facilities.

2.7 Structures

Construction of structures of any type is not allowed within the limits of Metropolitan's rights-of-way to avoid interference with the operation and maintenance of Metropolitan's facilities and possible construction of future facilities.

Footings and roof eaves of any proposed buildings adjacent to Metropolitan's rights-of-way must meet the following criteria:

A. Footings and roof eaves must not encroach onto Metropolitan's rights-of-way.

B. Footings must not impose any additional loading on Metropolitan's facilities.

C. Roof eaves must not overhang onto Metropolitan's rights-of-way.

Detailed plans of footings and roof eaves adjacent to Metropolitan's rights-of-way must be submitted for Metropolitan's review and written approval, as pertains to Metropolitan's facilities.

2.8 Protection of Metropolitan Facilities

Metropolitan facilities within its rights-of-way, including pipelines, structures, manholes, survey monuments, etc., must be protected from damage by the project proponent or property owner, at no expense to Metropolitan. The exact location, description and method of protection must be shown on the project plans.

2.9 Potholing of Metropolitan Pipelines

Metropolitan's pipelines must be potholed in advance, if the vertical clearance between a proposed utility and Metropolitan's pipeline is indicated to be 4 feet or less. A Metropolitan representative must be present during the potholing operation and will assist in locating the pipeline. Notice is required, a minimum of three working days, prior to any potholing activity.

2.10 Jacked Casings or Tunnels

A. General Requirements

Utility crossings installed by jacking, or in a jacked casing or tunnel under/over a Metropolitan pipeline, must have at least 3 feet of vertical clearance between the outside diameter of the pipelines and the jacked pipe, casing, or tunnel. The actual

cover over Metropolitan's pipeline shall be determined by potholing, under Metropolitan's supervision.

Utilities installed in a jacked casing or tunnel must have the annular space between the utility and the jacked casing or tunnel filled with grout. Provisions must be made for grouting any voids around the exterior of the jacked pipe, casing, or tunnel.

B. Jacking or Tunneling Procedures

Detailed jacking, tunneling, or directional boring procedures must be submitted to Metropolitan for review and approval. The procedures must cover all aspects of operation, including, but not limited to, dewatering, ground control, alignment control, and grouting pressure. The submittal must also include procedures to be used to control sloughing, running, or wet ground, if encountered. A minimum 10-foot clearance must be maintained between the face of the tunneling or receiving pits and outside edges of Metropolitan's facility.

C. Shoring

Detailed drawings of shoring for jacking or receiving pits must be submitted to Metropolitan for review and written-approval. (See Section 10 for shoring requirements).

D. Temporary Support

Temporary support of Metropolitan's pipelines may be required when a utility crosses under a Metropolitan pipeline and is installed by means of an open trench. Plans for temporary support must be reviewed and approved in writing by Metropolitan. (See Section 11, Supports of Metropolitan Facilities).

3.0 Landscaping

3.1 Plans

All landscape plans must show the location and limits of Metropolitan's right-of-way and the location and size of Metropolitan's pipeline and related facilities therein. All landscaping and vegetation shall be subject to removal without notice, as may be required by Metropolitan for ongoing maintenance, access, repair, and construction activities. Metropolitan will not be financially responsible for the removal of any landscaping and vegetation.

3.2 Drought-Tolerant Native and California Friendly Plants

Metropolitan recommends use of drought-tolerant native and California Friendly® plants (excluding sensitive plants) on proposed projects. For more information regarding California Friendly® plants refer to www.bewaterwise.com.

3.3 Trees

Trees are generally prohibited within Metropolitan's rights-of-way as they restrict Metropolitan's ability to operate, maintain and/or install new pipeline(s) located within these rights-of-way. Metropolitan will not be financially responsible for the removal and replacement of any existing trees should they interfere with access and any current or future Metropolitan project located within the right-of-way.

3.4 Other Vegetation

Shrubs, bushes, vines, and groundcover are generally allowed within Metropolitan's rights-of-way. Larger shrubs are not allowed on Metropolitan fee properties; however, they may be allowed within its easements if planted no closer than 15 feet from the outside edges of existing or future Metropolitan facilities. Only groundcover is allowed to be planted directly over Metropolitan pipeline, turf blocks or similar is recommended to accommodate our utility vehicle access. Metropolitan will not be financially responsible for the removal and replacement of the vegetation should it interfere with access and any current or future Metropolitan project.

3.5 Irrigation

Irrigation systems are acceptable within Metropolitan's rights-of-way, provided valves and controllers are located near the edges of the right-of-way and do not interfere with Metropolitan vehicular access. A shutoff valve should also be located along the edge of the right-of-way that will allow the shutdown of the system within the right-of-way should Metropolitan need to do any excavation. No pooling or saturation of water above Metropolitan's pipeline and right-of-way is allowed. Additional restrictions apply to non-potable water such as Recycled Water and are covered on Table 3 of Page 20.

3.6 Metropolitan Vehicular Access

Landscape plans must show Metropolitan vehicular access to Metropolitan's facilities and rights-of-way and must be maintained by the property owner or manager or homeowners association at all times. Walkways, bike paths, and trails within Metropolitan's rights-of-way may be used as Metropolitan access routes. (See Section 2.4, Walks, Bike Paths, and Trails).

4.0 General Utilities

Note: For non-potable piping like sewer, hazardous fluid, storm drain, disinfected tertiary recycled water and recycled water irrigation see Table 1 through Table 3.

4.1 Utility Structures

Permanent utility structures (e.g., manholes, power poles, pull boxes, electrical vaults, etc.) are not allowed within Metropolitan's rights-of-way. Metropolitan requests that all permanent utility structures within public streets be placed as far from its pipelines and facilities as practical, but not closer than 5 feet from the outside edges of Metropolitan facilities.

Note: Non-potable utility pipelines are an exception to the 5-foot minimum clearance. Non-potable utility pipelines should have 10 feet of separation.

4.2 Utility Crossings

Metropolitan requests a minimum of 1 foot of vertical clearance between Metropolitan's pipeline and any utility crossing the pipeline. Utility lines crossing Metropolitan's pipelines must be as perpendicular to the pipeline as possible. Cross-section drawings, showing proposed locations and elevations of utility lines and locations of Metropolitan's pipelines and limits of rights-of-way, must be submitted with utility plans, for all

crossings. Metropolitan's pipeline must be potholed under Metropolitan's supervision at the crossings (See Section 2.9).

4.3 Longitudinal Utilities

Installation of longitudinal utilities is generally not allowed along Metropolitan's rights-of-way. Within public streets, Metropolitan requests that all utilities parallel to Metropolitan's pipelines and appurtenant structures (facilities) be located as far from the facilities as possible, with a minimum clearance of 5 feet from the outside edges of the pipeline.

Note: Non-potable utility pipelines are an exception to the 5-foot minimum clearance. Non-potable utility pipelines should have 10 feet of separation (for more information See Table 1 on Page 18).

4.4 Underground Electrical Lines

Underground electrical conduits (110 volts or greater) which cross a Metropolitan's pipeline must have a minimum of 1 foot of vertical clearance between Metropolitan's pipeline and the electrical lines. Longitudinal electrical lines, including pull boxes and vaults, in public streets should have a minimum separation of 5 feet from the edge of a Metropolitan pipeline or structures.

4.5 Fiber Optic Lines

Fiber optic lines installed by directional boring require a minimum of 3 feet of vertical clearance when boring is over Metropolitan's pipelines and a minimum of 5 feet of vertical clearance when boring is under Metropolitan's pipelines. Longitudinal fiber optic lines, including pull boxes, in public streets should have a minimum separation of 5 feet from the edge of a Metropolitan pipelines or structures. Potholing must be performed, under Metropolitan's supervision, to verify the vertical clearances are maintained.

4.6 Overhead Electrical and Telephone Lines

Overhead electrical and telephone lines, where they cross Metropolitan's rights-of-way, must have a minimum 35 feet of clearance, as measured from the ground to the lowest point of the overhead line. Overhead electrical lines poles must be located at least 30 feet laterally from the edges of Metropolitan's facilities or outside Metropolitan's right-of-way, whichever is greater.

Longitudinal overhead electrical and or telephone lines in public streets should have a minimum separation of 10 feet from the edge of a Metropolitan pipelines or structures where possible.

4.7 Sewage Disposal Systems

Sewage disposal systems, including leach lines and septic tanks, must be a minimum of 100 feet from the outside limits of Metropolitan's rights-of-way or the edge of its facilities, whichever is greater. If soil conditions are poor, or other adverse site-specific conditions exist, a minimum distance of 150 feet is required. They must also comply with local and state health code requirements as they relate to sewage disposal systems in proximity to major drinking water supply pipelines.

4.8 Underground Tanks

Underground tanks containing hazardous materials must be a minimum of 100 feet from the outside limits of Metropolitan's rights-of-way or edge of its facilities, whichever is greater. In addition, groundwater flow should be considered with the placement of underground tanks down-gradient of Metropolitan's facilities.

5.0 Specific Utilities: Non-Potable Utility Pipelines

In addition to Metropolitan's general requirements, installation of non-potable utility pipelines (e.g., storm drains, sewers, and hazardous fluids pipelines) in Metropolitan's rights-of-way and public street rights-of-way must also conform to the State Water Resources Control Board's Division of Drinking Water (DDW) regulation (Waterworks Standards) and guidance for separation of water mains and non-potable pipelines and to applicable local county health code requirements. Written approval is required from DDW for the implementation of alternatives to the Waterworks Standards and, effective December 14, 2017, requests for alternatives to the Waterworks Standards must include information consistent with: DDW's Waterworks Standards Main Separation Alternative Request Checklist.

In addition to the following general guidelines, further review of the proposed project must be evaluated by Metropolitan and requirements may vary based on site specific conditions.

A. Sanitary Sewer and Hazardous Fluids (General Guideline See Table 1 on Page 18)

B. Storm Drain and Recycled Water (General Guideline See Table 2 on Page 19)

C. Irrigation with Recycled Water (General Guideline See Table 3 on Page 20)

D. Metropolitan generally does not allow Irrigation with recycled water to be applied directly above its treated water pipelines

E. Metropolitan requests copies of project correspondence with regulating agencies (e.g., Regional Water Quality Control Board, DDW); regarding the application of recycled water for all projects located on Metropolitan's rights-of-way

6.0 Cathodic Protection/Electrolysis Test Stations

6.1 Metropolitan Cathodic Protection

Metropolitan's existing cathodic protection facilities in the vicinity of any proposed work must be identified prior to any grading or excavation. The exact location, description, and type of protection must be shown on all project plans. Please contact Metropolitan for the location of its cathodic protection stations.

6.2 Review of Cathodic Protection Systems

Metropolitan must review any proposed installation of impressed-current cathodic protection systems on pipelines crossing or paralleling Metropolitan's pipelines to determine any potential conflicts with Metropolitan's existing cathodic protection system.

7.0 Drainage

7.1 Drainage Changes Affecting Metropolitan Rights-of-Way

Changes to existing drainage that could affect Metropolitan's rights-of-way require Metropolitan's approval. The project proponent must provide acceptable solutions to ensure Metropolitan's rights-of-way are not negatively affected by changes in the drainage conditions. Plans showing the changes, with a copy of a supporting hydrology report and hydraulic calculations, must be submitted to Metropolitan for review and approval. Long term maintenance of any proposed drainage facilities must be the responsibility of the project proponent, City, County, homeowner's association, etc., with a clear understanding of where this responsibility lies. If drainage must be discharged across Metropolitan's rights-of-way, it must be carried across by closed conduit or lined open channel and must be shown on the plans.

7.2 Metropolitan's Blowoff and Pumpwell Structures

Any changes to the existing local watercourse systems will need to be designed to accommodate Metropolitan's blowoff and pumpwell structures, which periodically convey discharged water from Metropolitan's blowoff and pumping well structures during pipeline dewatering. The project proponents' plans should include details of how these discharges are accommodated within the proposed development and must be submitted to Metropolitan for review and approval. Any blowoff discharge lines impacted must be modified accordingly at the expense of the project proponent.

8.0 Grading and Settlement

8.1 Changes in Cover over Metropolitan Pipelines

The existing cover over Metropolitan's pipelines must be maintained unless Metropolitan determines that proposed changes in grade and cover do not pose a hazard to the integrity of the pipeline or an impediment to its maintenance capability. Load and settlement or rebound due to change in cover over a Metropolitan pipeline or ground in the area of Metropolitan's rights-of-way will be factors considered by Metropolitan during project review.

In general, the minimum cover over a Metropolitan pipeline is 4 feet and the maximum cover varies per different pipeline. Any changes to the existing grade may require that Metropolitan's pipeline be potholed under Metropolitan's supervision to verify the existing cover.

8.2 Settlement

Any changes to the existing topography in the area of Metropolitan's pipeline or right-of-way that result in significant settlement or lateral displacement of Metropolitan's pipelines are not acceptable. Metropolitan may require submittal of a soils report showing the predicted settlement of the pipeline at 10-foot intervals for review. The data must be carried past the point of zero change in each direction and the actual size and varying depth of the fill must be considered when determining the settlement. Possible settlement due to soil collapse, rebound and lateral displacement must also be included.

In general, the typical maximum allowed deflection for Metropolitan's pipelines must not exceed a deflection of 1/4-inch for every 100 feet of pipe length. Metropolitan may require additional information per its Geotechnical Guidelines. Please contact Metropolitan's Substructures Team for a copy of the Geotechnical Guidelines.

9.0 Construction Equipment

9.1 Review of Proposed Equipment

Use of equipment across or adjacent to Metropolitan's facilities is subject to prior review and written approval by Metropolitan. Excavation, backfill, and other work in the vicinity of Metropolitan's facilities must be performed only by methods and with equipment approved by Metropolitan. A list of all equipment to be used must be submitted to Metropolitan a minimum of 30 days before the start of work.

A. For equipment operating within paved public roadways, equipment that imposes loads not greater than that of an AASHTO H-20 vehicle (see Figure 1 on Page 21) may operate across or adjacent to Metropolitan's pipelines provided the equipment operates in non-vibratory mode and the road remains continuously paved.

B. For equipment operating within unpaved public roadways, when the total cover over Metropolitan's pipeline is 10 feet or greater, equipment imposing loads no greater than those imposed by an AASHTO H-20 vehicle may operate over or adjacent to the pipeline provided the equipment is operated in non-vibratory mode. For crossings, vehicle path shall be maintained in a smooth condition, with no breaks in grade for 3 vehicle lengths on each side of the pipeline.

9.2 Equipment Restrictions

In general, no equipment may be used closer than 20 feet from all Metropolitan above-ground structures. The area around the structures should be flagged to prevent equipment encroaching into this zone.

9.3 Vibratory Compaction Equipment

Vibratory compaction equipment may not be used in vibratory mode within 20 feet of the edge of Metropolitan's pipelines.

9.4 Equipment Descriptions

The following information/specifications for each piece of equipment should be included on the list:

A. A description of the equipment, including the type, manufacturer, model year, and model number. For example, wheel tractor-scraper, 1990 Caterpillar 627E.

B. The empty and loaded total weight and the corresponding weight distribution. If equipment will be used empty only, it should be clearly stated.

C. The wheel base (for each axle), tread width (for each axle), and tire footprint (width and length) or the track ground contact (width and length), and track gauge (center to center of track).

10.0 Excavations Close to Metropolitan Facilities

10.1 Shoring Design Submittal

Excavation that impacts Metropolitan's facilities requires that the contractor submit an engineered shoring design to Metropolitan for review and acceptance a minimum of 30 days before the scheduled start of excavation. Excavation may not begin until the shoring design is accepted in writing by Metropolitan.

Shoring design submittals must include all required trenches, pits, and tunnel or jacking operations and related calculations. Before starting the shoring design, the design engineer should consult with Metropolitan regarding Metropolitan's requirements, particularly as to any special procedures that may be required.

10.2 Shoring Design Requirements

Shoring design submittals must be stamped and signed by a California registered civil or structural engineer. The following requirements apply:

A. The submitted shoring must provide appropriate support for soil adjacent to and under Metropolitan's facilities.

B. Shoring submittals must include detailed procedures for the installation and removal of the shoring.

C. Design calculations must follow the Title 8, Chapter 4, Article 6 of the California Code of Regulations (CCR) guidelines. Accepted methods of analysis must be used.

D. Loads must be in accordance with the CCR guidelines or a soils report by a geotechnical consultant.

E. All members must be secured to prevent sliding, falling, or kickouts.

Metropolitan's pipelines must be located by potholing under Metropolitan's supervision before the beginning construction. Use of driven piles within 20 feet of the centerline of Metropolitan's pipeline is not allowed. Piles installed in drilled holes must have a minimum 2-foot clearance between Metropolitan's pipeline and the edge of the drilled hole, and a minimum of 1-foot clearance between any part of the shoring and Metropolitan's pipeline.

11.0 Support of Metropolitan Facilities

11.1 Support Design Submittal

If temporary support of a Metropolitan facility is required, the contractor shall submit a support design plan to Metropolitan for review and approval a minimum of 30 days before the scheduled start of work. Work may not begin until the support design is approved in writing by Metropolitan. Before starting design, the design engineer should consult with Metropolitan regarding Metropolitan's requirements.

11.2 Support Design Requirements

Support design submittals must be prepared, stamped, and signed by a California registered civil or structural engineer. The following requirements apply:

A. Support drawings must include detailed procedures for the installation and removal of the support system.

B. Design calculations must follow accepted practices, and accepted methods of analysis must be used.

C. Support designs must show uniform support of Metropolitan's facilities with minimal deflection.

D. The total weight of the facility must be transferred to the support system before supporting soil is fully excavated.

E. All members must be secured to prevent sliding, falling, or kickouts.

12.0 Backfill

12.1 Metropolitan Pipeline Not Supported

In areas where a portion of Metropolitan pipeline is not supported during construction, the backfill under and to an elevation of 6 inches above the top of the pipeline must be one-sack minimum cement sand slurry. To prevent adhesion of the slurry to Metropolitan's pipeline, a minimum 6-mil-thick layer of polyethylene sheeting or similar approved sheeting must be placed between the concrete support and the pipeline.

12.2 Metropolitan Pipeline Partially Exposed

In areas where a Metropolitan pipeline is partially exposed during construction, the backfill must be a minimum of 6 inches above the top of the pipeline with sand compacted to minimum 90 percent compaction.

12.3 Metropolitan Cut and Cover Conduit on Colorado River Aqueduct (CRA)

In areas where a Metropolitan cut and cover conduit is exposed, the following guidelines apply:

A. No vehicle or equipment shall operate over or cross the conduit when the cover is less than 3 feet.

B. Track-type dozer with a gross vehicle weight of 12,000 lbs or less may be used over the conduit when the cover is a minimum of 3 feet.

C. Wheeled vehicles with a gross vehicle weight of 8,000 lbs or less may operate over the conduit when the cover is a minimum of 4 feet.

D. Tracked dozer or wheeled vehicle should be used to push material over the conduit from the side.

E. Tracked dozer or wheeled vehicle should gradually increase cover on one side of the conduit and then cross the conduit and increase cover on the other side of the conduit. The cover should be increased on one side of the conduit until a maximum of 2 feet of fill has been placed. The cover over the conduit is not allowed to be more than 2 feet higher on one side of the conduit than on the other side.

F. The cover should be gradually increased over the conduit until the grade elevations have been restored.

13.0 Piles

13.1 Impacts on Metropolitan Pipelines

Pile support for structures could impose lateral, vertical and seismic loads on Metropolitan's pipelines. Since the installation of piles could also cause settlement of Metropolitan pipelines, a settlement and/or lateral deformation study may be required for pile installations within 50 feet of Metropolitan's pipelines. Metropolitan may require additional information per its Geo-technical Guidelines for pile installation. Please contact Metropolitan's Substructures Team for a copy of the Geotechnical Guidelines.

13.2 Permanent Cast-in-place Piles

Permanent cast-in-place piles must be constructed so that down drag forces of the pile do not act on Metropolitan's pipeline. The pile must be designed so that down drag forces are not developed from the ground surface to springline of Metropolitan's pipeline.

Permanent cast-in-place piles shall not be placed closer than 5 feet from the edge of Metropolitan's pipeline. Metropolitan may require additional information per its Geo-technical Guidelines for pile installation. Please contact Metropolitan's Substructures Team for a copy of the Geotechnical Guidelines.

14.0 Protective Slabs for Road Crossings Over Metropolitan Pipelines

Protective slabs must be permanent cast-in-place concrete protective slabs configured in accordance with Drawing SK-1 (See Figure 2 on Page 22).

The moments and shear for the protective slab may be derived from the American Association of State Highway and Transportation Officials (AASHTO). The following requirements apply:

A. The concrete must be designed to meet the requirements of AASHTO

B. Load and impact factors must be in accordance with AASHTO. Accepted methods of analysis must be used.

C. The protective slab design must be stamped and signed by a California registered civil or structural engineer and submitted to Metropolitan with supporting calculations for review and approval.

Existing protective slabs that need to be lengthened can be lengthened without modification, provided the cover and other loading have not been increased.

15.0 Blasting

At least 90 days prior to the start of any drilling for rock excavation blasting, or any blasting in the vicinity of Metropolitan's facilities, a site-specific blasting plan must be submitted to Metropolitan for review and approval. The plan must consist of, but not be limited to, hole diameters, timing sequences, explosive weights, peak particle velocities (PPV) at Metropolitan pipelines/structures, and their distances to blast locations. The PPV must be estimated based on a site-specific power law equation. The power law equation provides the peak particle velocity versus the scaled distance and must be calibrated based on measured values at the site.

16.0 Metropolitan Plan Review Costs, Construction Costs and Billing

16.1 Plan Review Costs

Metropolitan plan reviews requiring 8 labor hours or less are generally performed at no cost to the project proponent. Metropolitan plan reviews requiring more than 8 labor hours must be paid by the project proponent, unless the project proponent has superior rights at the project area. The plan review will include a written response detailing Metropolitan's comments, requirements, and/or approval.

A deposit of funds in the amount of the estimated cost and a signed letter agreement will be required from the project proponent before Metropolitan begins or continues a detailed engineering plan review that exceeds 8 labor hours.

16.2 Cost of Modification of Facilities Performed by Metropolitan

Cost of modification work conducted by Metropolitan will be borne by the project proponent, when Metropolitan has paramount/prior rights at the subject location.

Metropolitan will transmit a cost estimate for the modification work to be performed (when it has paramount/prior rights) and will require that a deposit, in the amount of the estimate, be received before the work will be performed.

16.3 Final Billing

Final billing will be based on the actual costs incurred, including engineering plan review, inspection, materials, construction, and administrative overhead charges calculated in accordance with Metropolitan's standard accounting practices. If the total cost is less than the deposit, a refund will be made; however, if the cost exceeds the deposit, an invoice for the additional amount will be forwarded for payment.

17.0 Street Vacations and Reservation of Easements for Metropolitan

A reservation of an easement is required when all or a portion of a public street where Metropolitan facilities are located is to be vacated. The easement must be equal to the street width being vacated or a minimum 40 feet. The reservation must identify Metropolitan as a "public entity" and not a "public utility," prior to recordation of the vacation or tract map. The reservation of an easement must be submitted to Metropolitan for review prior to final approval.

18.0 Metropolitan Land Use Guidelines

If you are interested in obtaining permission to use Metropolitan land (temporary or long term), a Land Use Form must be completed and submitted to Metropolitan for review and consideration. A nonrefundable processing fee is required to cover Metropolitan's costs for reviewing your request. Land Use Request Forms can be found at:

http://mwdh2o.com/PDF_Doing_Your_Business/4.7.1_Land_Use_Request_form_revised.pdf

The request should be emailed to RealEstateServices@mwdh2o.com,or contact the Real Property Development and Management (RPDM) Group at (213) 217-7750.

After the initial application form has been submitted, Metropolitan may require the following in order to process your request:

A. A map indicating the location(s) where access is needed, and the location & size (height, width and depth) of any invasive subsurface activity (boreholes, trenches, etc.).

B. The California Environmental Quality Act (CEQA) document(s) or studies that have been prepared for the project (e.g., initial study, notice of exemption, Environmental Impact Report (EIR), Mitigated Negative Declaration (MND), etc.).

C. A copy of an ACORD insurance certification naming Metropolitan as an additional insured, or a current copy of a statement of self-insurance.

D. Confirmation of the legal name of the person(s) or entity(ies) that are to be named as the permittee(s) in the entry permit.

E. Confirmation of the purpose of the land use.

F. The name of the person(s) with the authority to sign the documents and any specific signature title block requirements for that person or any other persons required to sign the document (i.e., legal counsel, Board Secretary/Clerk, etc.).

G. A description of any vehicles that will have access to the property. The exact make or model information is not necessary; however, the general vehicle type, expected maximum dimensions (height, length, width), and a specific maximum weight must be provided.

Land use applications and proposed use of the property must be compatible with Metropolitan's present and/or future use of the property. Any preliminary review of your request by Metropolitan shall not be construed as a promise to grant any property rights for the use of Metropolitan's property.

19.0 Compliance with Environmental Laws and Regulations

As a public agency, Metropolitan is required to comply with all applicable environmental laws and regulations related to the activities it carries out or approves. Consequently, project plans, maps, and other information must be reviewed to determine Metropolitan's obligations pursuant to state and federal environmental laws and regulations, including, but not limited to:

A. California Environmental Quality Act (CEQA) (Public Resources Code 21000-21177) and the State CEQA Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 1500-15387)

B. Federal Endangered Species Act (ESA) of 1973, 16 U.S.C. §§ 1531, et seq.

C. California Fish and Game Code Sections 2050-2069 (California ESA)

D. California Fish and Game Code Section 1602

E. California Fish and Game Code Sections 3511, 4700, 5050 and 5515 (California fully protected species)

F. Federal Migratory Bird Treaty Act (MBTA), 16 U.S.C. §§ 703-712

G. Federal Clean Water Act (including but not limited to Sections 404 and 401) 33 U.S.C. §§ 1342, 1344)

H. Porter Cologne Water Quality Control Act of 1969, California Water Code §§ 13000-14076.

I. Title 22, California Code of Regulations, Chapter 16 (California Waterworks Standards), Section 64572 (Water Main Separation)

Metropolitan may require the project applicant to pay for any environmental review, compliance and/or mitigation costs incurred to satisfy such legal obligations.

20.0 Paramount Rights / Metropolitan's Rights within Existing Rights-of-Way

Facilities constructed within Metropolitan's rights-of-way shall be subject to the paramount right of Metropolitan to use its rights-of-way for the purpose for which they were acquired. If at any time Metropolitan or its assigns should, in the exercise of their rights, find it necessary to remove or relocate any facilities from its rights-of-way, such removal and replacement or relocation shall be at the expense of the owner of the facility.

21.0 Disclaimer and Information Accuracy

Metropolitan assumes no responsibility for the accuracy of the substructure information herein provided. The user assumes responsibility for verifying substructure locations before excavating and assumes all liability for damage to Metropolitan's facilities as a result of such excavation. Additionally, the user is cautioned to conduct surveys and other field investigations as you may deem prudent, to assure that your project plans are correct. The relevant representative from Metropolitan must be called at least two working days, before any work activity in proximity to Metropolitan's facilities.

It generally takes 30 days to review project plans and provide written responses. Metropolitan reserves the right to modify requirements based on case-specific issues and regulatory developments.

Table 1: General Guidelines for Pipeline Separation between Metropolitan's Pipeline[1] and Sanitary Sewer[2] or Hazardous Fluid Pipeline[3]

Pipeline Crossings	Metropolitan requires that sanitary sewer and hazardous fluid pipelines that cross Metropolitan's pipelines have special pipe construction (no joints) **and** secondary containment[4]. This is required for the full width of Metropolitan's rights-of-way or within 10 feet tangent to the outer edges of Metropolitan's pipeline within public streets. Additionally, sanitary sewer and hazardous fluid pipelines crossing Metropolitan's pipelines must be perpendicular and maintain a minimum 1-foot vertical clearance between the top and the bottom of Metropolitan's pipeline and the pipe casing. These requirements apply to all sanitary sewer crossings regardless if the sanitary sewer main is located below or above Metropolitan's pipeline.
Parallel Pipeline	Metropolitan generally does not permit the installation of longitudinal pipelines along its rights-of-way. Within public streets, Metropolitan requires that all parallel sanitary sewer, hazardous fluid pipelines and/or non-potable utilities be located a minimum of 10 feet from the outside edges of Metropolitan's pipelines. When 10-foot horizontal separation criteria cannot be met, longitudinal pipelines require special pipe construction (no joints) **and** secondary containment[4].
Sewer Manhole	Sanitary sewer manholes are not allowed within Metropolitan's rights-of-way. Within public streets, Metropolitan requests manholes parallel to its pipeline be located a minimum of 10 feet from the outside edges of its pipelines. When 10 foot horizontal separation criteria cannot be met, the structure must have secondary containment[5].

Notes:

[1] *Separation distances are measured from the outer edges of each pipe.*

[2] *Sanitary sewer requirements apply to all recycled water treated to less than disinfected tertiary recycled water (disinfected secondary recycled water or less).* Recycled water definitions are included in Title 22, California Code of Regulations, Chapter 3 (Water Recycling Criteria), Section 60301.

[3] *Hazardous fluids include e.g., oil, fuels, chemicals, industrial wastes, wastewater sludge, etc.*

[4] *Secondary Containment for Pipeline - Secondary containment consists of a continuous pipeline sleeve (no joints). Examples acceptable to Metropolitan include welded steel pipe with grout in annular space and cathodic protection (unless coated with non-conductive material) and High Density Polyethylene (HDPE) pipe with fusion-welded joints.*

[5] *Secondary Containment for Structures – Secondary containment consists of external HDPE liner or other approved method.*

Table 2: General Guidelines for Pipeline Separation between Metropolitan's Pipeline[1] and Storm Drain and/or Disinfected Tertiary Recycled Water[2]

Pipeline Crossings	Metropolitan requires crossing pipelines to be special pipe construction (no joints) or have secondary containment[3] within 10-feet tangent to the outer edges of Metropolitan's pipeline. Additionally, pipelines crossing Metropolitan's pipelines must be perpendicular and maintain a minimum 1-foot vertical clearance.
Parallel Pipeline	Metropolitan generally does not permit the installation of longitudinal pipelines along its rights-of-way. Within public streets, Metropolitan requests that all parallel pipelines be located a minimum of 10 feet from the outside edges of Metropolitan's pipelines. When 10-foot horizontal separation criteria cannot be met, special pipe construction (no joints) or secondary containment[3] are required.
Storm Drain Manhole	Permanent utility structures (e.g., manhole. catch basin, inlets) are not allowed within Metropolitan's rights-of-way. Within public streets, Metropolitan requests all structures parallel to its pipeline be located a minimum of 10 feet from the outside edges of its pipelines. When 10 foot horizontal separation criteria cannot be met, the structure must have secondary containment[4].

Notes:

[1] *Separation distances are measured from the outer edges of each pipe.*

[2] *Disinfected tertiary recycled water as defined* in Title 22, California Code of Regulations, Chapter 3 (*Water Recycling Criteria*), Section 60301.

[3] *Secondary Containment for Pipeline - Secondary containment consists of a continuous pipeline sleeve (no joints). Examples acceptable to Metropolitan include welded steel pipe with grout in annular space and cathodic protection (unless coated with non-conductive material) and High Density Polyethylene (HDPE) pipe with fusion-welded joints.*

[4] *Secondary Containment for Structures – Secondary containment consists of external HDPE liner or other approved method.*

Table 3: General Guidelines for Pipeline Separation[1] between Metropolitan's Pipeline and Recycled Water[2,4] Irrigations

Pressurized recycled irrigation mainlines	• Crossings - must be perpendicular and maintain a minimum 1-foot vertical clearance. Crossing pressurized recycled irrigation mainlines must be special pipe construction (no joints) or have secondary containment[3] within 10-feet tangent to the outer edges of Metropolitan's pipeline. • Longitudinal - must maintain a minimum 10-foot horizontal separation and route along the perimeter of Metropolitan's rights-of-way where possible.
Intermittently Energized Recycled Water Irrigation System Components	• Crossings - must be perpendicular and maintain a minimum 1-foot vertical clearance. Crossing irrigation laterals within 5-feet tangent to the outer edges of Metropolitan's pipeline must be special pipe construction (no joints) or have secondary containment[3]. • Longitudinal – must maintain a minimum 5-foot horizontal separation between all intermittently energized recycled water irrigation system components (e.g. irrigation lateral lines, control valves, rotors) and the outer edges of Metropolitan's pipeline. Longitudinal irrigation laterals within 5-feet tangent to the outer edges of Metropolitan's pipeline must be special pipe construction (no joints) or have secondary containment[3].
Irrigation Structures	Irrigation structures such as meters, pumps, control valves, etc. must be located outside of Metropolitan's rights-of-way.
Irrigation spray rotors near Metropolitan's aboveground facilities	Irrigation spray rotors must be located a minimum of 20-foot from any Metropolitan above ground structures with the spray direction away from these structures. These rotors should be routinely maintained and adjusted as necessary to ensure no over-spray into 20-foot clear zones.
Irrigations near open canals and aqueducts	Irrigation with recycled water near open canals and aqueducts will require a setback distance to be determined based on site-specific conditions. Runoff of recycled water must be contained within an approved use area and not impact Metropolitan facilities. Appropriate setbacks must also be in place to prevent overspray of recycled water impacting Metropolitan's facilities.

Notes:

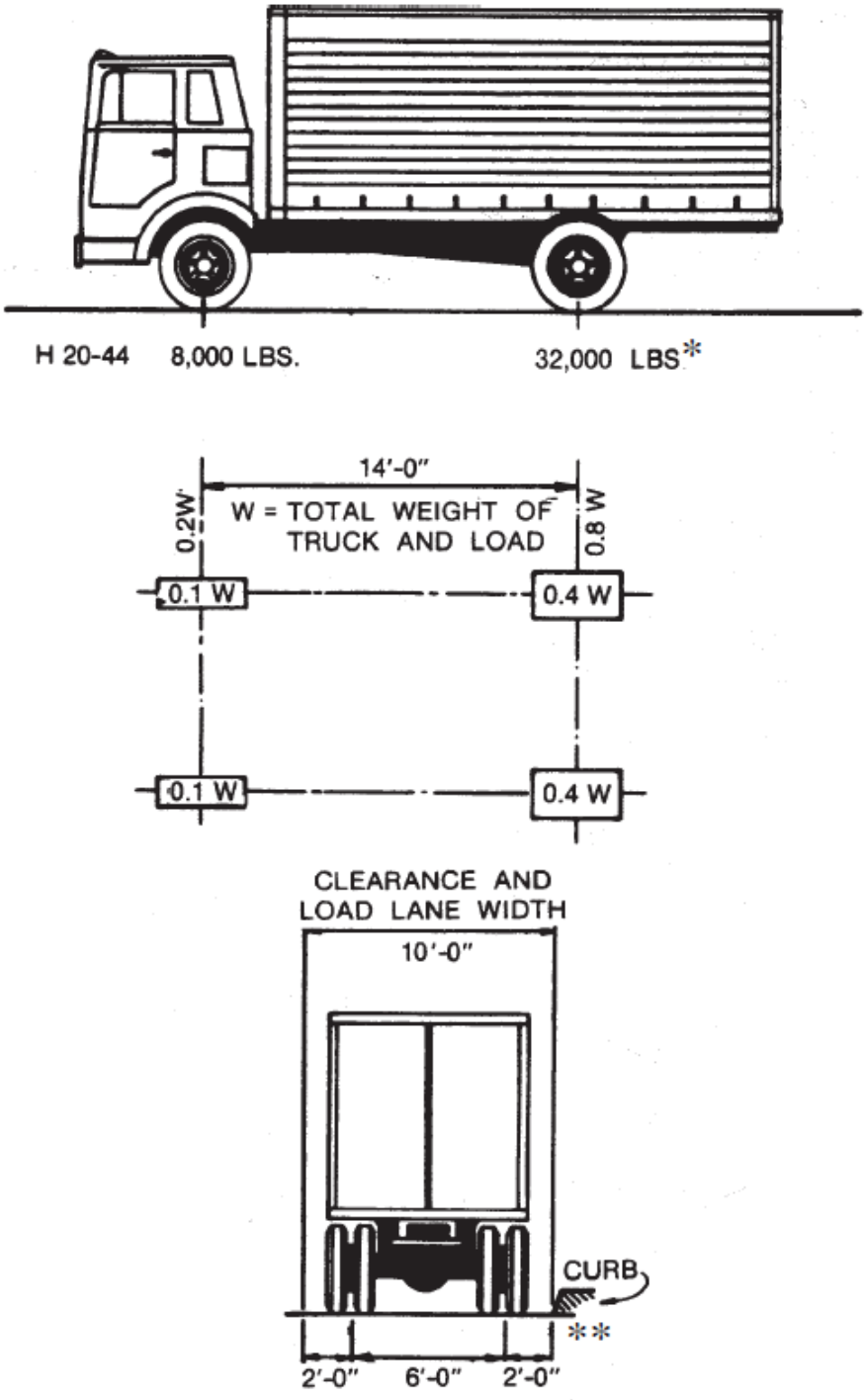
[1] *Separation distances are measured from the outer edges of each pipe.*

[2] *Requirements for recycled water irrigation apply to all levels of treatment of recycled water for non-potable uses.* Recycled water definitions are included in Title 22, California Code of Regulations, Chapter 3 (*Water Recycling Criteria*), Section 60301.

[3] *Secondary Containment for Pipeline - Secondary containment consists of a continuous pipeline sleeve (no joints). Examples acceptable to Metropolitan include welded steel pipe with grout in annular space and cathodic protection (unless coated with non-conductive material) and High Density Polyethylene (HDPE) pipe with fusion-welded joints.*

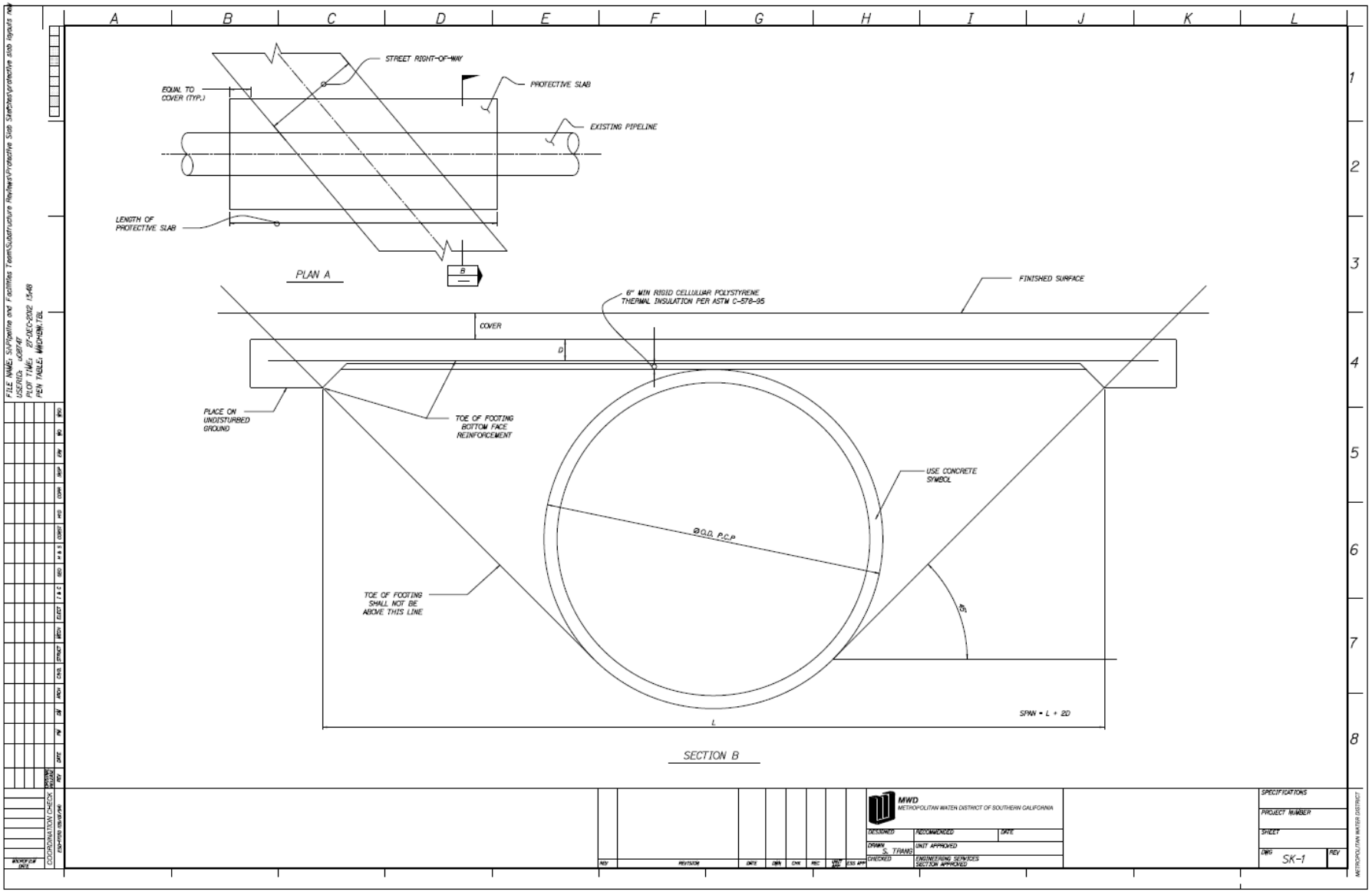
[4] *Irrigation with recycled water shall not be applied directly above Metropolitan's treated water pipelines.*

Figure 1: AASHTO H-20 Loading



Note: The H loadings consist of a two-axle truck or the corresponding lane loadings as illustrated above. The H loadings are designated "H" followed by a number indicating the gross weight in tons of the standard truck.

Figure 2: Drawing SK-1



Salazar, Cindy

From: Ted DeWitt <ted5310@msn.com>
Sent: Friday, June 14, 2019 6:49 PM
To: Salazar, Cindy
Subject: I am against the Brea Canyon Road Widening

We don’t need more cars on the road only to logjam where it will go back to 1 lane. I t will harm animal crossings and the entire neighborhood

Sent from Mail for Windows 10

Salazar, Cindy

From: Morgan, Austin
Sent: Wednesday, June 19, 2019 10:12 AM
To: Salazar, Cindy
Subject: Fwd: Notice of Preparation of a Draft Environmental Impact Report and Notice of a Public Scoping Meeting

Sent from my iPhone

Begin forwarded message:

> **From:** "Rivers, Tamy" <TamyRivers@ocfa.org>
> **Date:** June 19, 2019 at 10:11:02 AM PDT
> **To:** "Austin.Morgan@ocpw.ocgov.com" <Austin.Morgan@ocpw.ocgov.com>
> **Subject: Notice of Preparation of a Draft Environmental Impact Report and Notice of a Public Scoping Meeting**
>
> Thank you for the opportunity to review subject document. OCFA has no comments.
>
> **Tamera Rivers**
> Management Analyst
> Orange County Fire Authority
> Office: 714-573-6199
> tamyrivers@ocfa.org
>
> *We visualize problems and solutions through the eyes of those we serve.*

Salazar, Cindy

To: OCPW Project Info
Subject: RE: Brea Canyon Road Widening

From: OCPW Project Info <ProjectInfo@ocpw.ocgov.com>
Sent: Friday, May 31, 2019 8:43 AM
To: Golliher, Justin <Justin.Golliher@ocpw.ocgov.com>; Morgan, Austin <Austin.Morgan@ocpw.ocgov.com>; Salazar, Cindy <Cindy.Salazar@ocpw.ocgov.com>
Subject: FW: Brea Canyon Road Widening

All,

Please see the below email we received in our general inbox regarding Brea Blvd / Brea Canyon Road. Let me know if you would like me to provide your contact information to Ms. Malpica, or if you prefer to reach out directly.

Thank you,

Nathan Wheadon
Strategic Communications Manager
OC Public Works
300 N. Flower Street, Santa Ana, CA 92703
714-667-9602 *office*
714-955-3496 *cell*
nathan.wheadon@ocpw.ocgov.com
www.OCPublicWorks.com

OC PublicWorks
Integrity, Accountability, Service, Trust

From: Christian Malpica
Sent: Thursday, May 30, 2019 2:16 PM
To: OCPW Project Info
Subject: Brea Canyon Road Widening

To Whom it may concern,

We just learned regarding the proposed widening of the BCY Road per the attached Public Coping Meeting notice. I like to know more about the proposed project and how will Diamond Bar be affected, and if there will be an increase of cut-Thru traffic.

Thank you in advance.

Christian Malpica | Associate Engineer
Traffic Management Center Manager
City of Diamond Bar | Public Works Department
909.839.7042

Public Scoping Meeting

Reunión De Alcance Público

OCPublicWorks

Brea Boulevard/Brea Canyon Road Widening Project

Orange County Public Works has identified the need to widen Brea Boulevard/Brea Canyon Road consistent with the Orange County Master Plan of Arterial Highways (MPAH). The project area is located within both unincorporated County of Orange and City of Brea areas, spanning from Canyondale Drive in Brea to the Orange/Los Angeles County boundary line.

You're invited to join OC Public Works staff at a public scoping meeting for an opportunity to learn more about the project and provide input. Your feedback is important to us – OC Public Works staff will receive comments and questions during the scoping meeting. Comments provided during the meeting will be taken into consideration as we work toward the final project design.

Orange County Public Works ha identificado la necesidad de ampliar Brea Boulevard/Brea Canyon Road, consistente con el Plan Maestro de Autopistas Arteriales de Orange County (MPAH, por sus siglas en ingles). La zona del proyecto se encuentra dentro de áreas no incorporadas del Condado de Orange y la Ciudad de Brea, abarcando desde Canyondale Drive en Brea hasta la frontera entre los Condados de Orange y Los Angeles.

Usted está invitado a acompañar al personal de OC Public Works en una reunión de alcance público para una oportunidad para aprender más sobre el proyecto y ofrecer su opinión. Sus comentarios son importantes para nosotros—personal de OC Public Works recibirá comentarios públicos y preguntas durante la reunión de alcance. Los comentarios proporcionados durante la reunión se tomarán en consideración mientras trabajamos hacia el diseño final del proyecto.

WHAT
¿Qué es?

Public Scoping Meeting
Reunión De Alcance Público

WHERE
¿Dónde?

Mariposa Elementary School
Escuela Primaria Mariposa

1111 Mariposa Drive
Brea, CA 92821

WHEN
¿Cuándo?

Wednesday, May 29, 2019
miércoles, 29 de mayo del 2019
6:00 pm – 7:30 pm

CONTACT INFORMATION

714.667.9602
ProjectInfo@ocpw.ocgov.com
OCPublicWorks.com/BreaCanyonRoad
OCpublicworks
OCpublicworks

We want to hear from you!

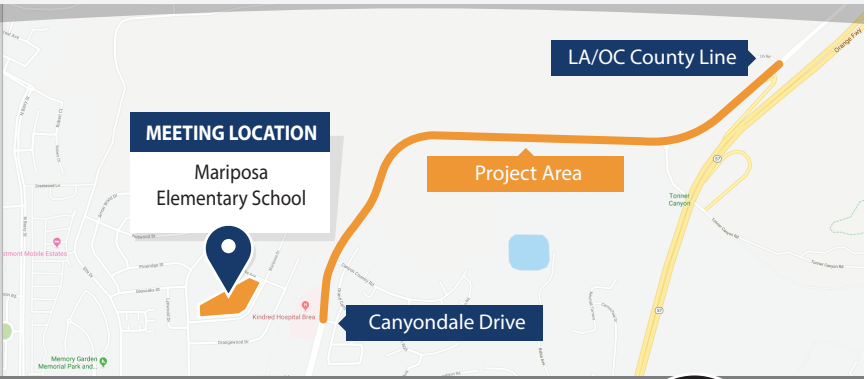
¡Queremos saber su opinión!

PUBLIC SCOPING MEETING

Reunión De Alcance Público

Brea Boulevard/Brea Canyon Road Widening Project

Proyecto del Ampliación de Brea Boulevard/Brea Canyon Road



OCPublicWorks

COUNTY OF ORANGE CALIFORNIA

OCPublicWorks
300 N. Flower Street
Santa Ana, CA 92703

Salazar, Cindy

From: OCPW Project Info
Sent: Tuesday, June 18, 2019 11:18 AM
To: Golliher, Justin; Salazar, Cindy; Morgan, Austin
Cc: Widor, Shannon
Subject: FW: Brea Boulevard / Brea Canyon Road Widening Project

All,

Please see the feedback below - a bit of support for the project with a note to be aware of other area projects. I already responded accordingly, but I wanted to share as an FYI.

Thank you,

Nathan Wheadon
Strategic Communications Manager
OC Public Works
300 N. Flower Street, Santa Ana, CA 92703
714-667-9602 office
714-955-3496 cell
nathan.wheadon@ocpw.ocgov.com
www.OCPublicWorks.com

-----Original Message-----
From: Matt Weidler <mattweidler@hotmail.com>
Sent: Monday, June 17, 2019 5:38 AM
To: OCPW Project Info <ProjectInfo@ocpw.ocgov.com>
Subject: Brea Boulevard / Brea Canyon Road Widening Project

Hopefully it's not too late to provide my feedback.

I just want to say that while I think this project is an excellent idea, it would be extremely poorly timed if it overlaps with the I-57 / Lambert Rd. on-ramp construction. This road often acts as an alternate route for freeway traffic, so State College between Lambert and Brea Blvd would grind to a halt.

-Matt Weidler
Brea Resident

Sent from my iPhone

FRIENDS OF THE WHITTIER HILLS
Box 247
Whittier, California 90608

RECEIVED
JUN 19 2019
COUNTY OF ORANGE

June 17, 2019

Cindy Salazar, Senior Planner
Orange County Development Services
300 N. Flower Street
Santa Anna, CA 92702-4048

Re: Comments on Notice of Participation of an Environmental Impact Report for the Brea Canyon Road Widening Project SCH # 2017051005

Dear Ms Salazar,

The Friends of the Whittier Hills Association appreciates the opportunity to comment on the Notice of Participation (NOP) of the Environmental Impact Report (EIR) for the Brea Canyon Widening Project released May 17, 2019.

Citizens created the Friends of Whittier Hills Association after the successful Save Our Hills, Save Our Hills Again Referendums and the writing and passage of Proposition A. We represent citizens of Whittier, La Habra Heights and Hacienda Height that are dedicated to education about the hills and continued protection of the habitat and the bio-diversity of its wildlife.

We are deeply concerned about the proposed widening of Brea Canyon Road from a two lanes to four with a fourteen-foot median or six-foot median with concrete barriers. This project occurs at a chokepoint in the Chino Hills - Puente Hills Wildlife Corridor. Biologically, this area preserves a microcosm of California Floristic Province, an identified biodiversity hot spot in North America and a genetic reserve for the continent that makes it regionally and globally significant.

It is critically important that an independent party evaluate section IV of the checklist, Biological Resources, with expertise in both upland and riparian habitats. Thorough surveys of the wildlife and assessment of existing conditions in this crucial habitat is necessary to insure that the role it current plays in the connectivity between Chino State Park to the East and the publicly owned land to the West is preserved. As the project now exists it has the potential of becoming a barrier to migration, isolating the animal populations to the west, causing genetic degradation and possible eventual extinction. It

is only with such studies that appropriate adaptation; modification and mitigation can be identified.

Thank you for your consideration of these comments on the NOP. Please add our Association to the contact list for this planning process.

Sincerely,

James B. Kelly Jr.
President
Friends of the Whittier Hills
Box 247
Wittier, CA 90608
Jb123kelly@earthlink.net
626 622-6541

Salazar, Cindy

From: ramonxu888 <ramonxu888@gmail.com>
Sent: Thursday, June 20, 2019 10:35 AM
To: Salazar, Cindy
Subject: Feedback for the widening project

Dear Cindy,
Good morning, sorry for the late email.

We are the family living in 1123 Grand Canyon road, right next to where you are planning to widen the road.

In general, we are glad for the improvement plan for widening the road. Our only concern is that noise that caused by busy traffic after the road is widen, and the safety?

Currently with 2 way road, our back yard has been pretty noisy of all motor sounds. After the road is widen and expecting for heavier traffic, what is your plan of reducing the noice and anything can be done to minimize the noisy? Any amount of added noisy will be badly influent our family.

Hope to get more details from you.
Thank you,
Ramon Xu

Orange County Public Works Dept.
300 N. Flower St
Santa Ana, CA 92703
Attn: Cindy Salazar

RECEIVED
JUN 17 2019
COUNTY OF ORANGE

June 11, 2019

Re: Comments regarding the Brea Boulevard/Brea Canyon Road Widening

Dear Ms. Salazar:

We are original homeowners on Grand Canyon, who will be severely impacted by this proposed project, and we would like our concerns and objections noted and taken into serious consideration as you develop this project. As many people stated at the meeting at Mariposa School, the traffic problem in Brea and Diamond Bar needs to be resolved **by fixing the 57 freeway** traffic to eliminate the cut-throughs in Brea and Diamond Bar. Brea Canyon Road is not, and should not be turned into, a major arterial road. We also object to the short-sightedness of not working on the freeway and the northernmost section of Brea Canyon Road into Diamond Bar to mitigate the demand placed on Brea Canyon.

The proposed widening of Brea Boulevard will be insufficient to solve the current traffic jams, as it only pushes the bottleneck up from State College to Tonner Canyon. Adding additional signals on Brea Canyon Road will further jam up the traffic. This additional traffic and bottlenecks adds more noise and emissions pollution to our residential neighborhood, as well as creating additional safety problems.

Furthermore, the widening has a number of negative environmental, historical and cultural impacts, many of which were listed on the slide you showed at the meeting. We want the Canyon to remain open space with continued access for the wild life and unrestricted corridors for their migration patterns. Construction of high retaining walls and concrete medians impacts the animals, as well as being aesthetically unpleasing and eliminating the beautiful scenery of the area.

One subject that I didn't hear addressed at the meeting is how you will acquire the property needed to do the widening. Will you be taking strips of private property along Brea Canyon from the homeowners whose homes back up to it? Will you be covering over the Creek that currently runs alongside and crosses the road in 3 places?

If this project is going to proceed despite the objections of the residents, at the least we request the following actions:

1) **Do not begin any work** until the Lambert Road Freeway interchange work **is completed**. Having these two construction projects underway at the same time will make the traffic in north Brea **impossible.**
2) Be sure when you relocate utilities, they are all **undergrounded,** for safety, as well as aesthetics.
3) When the work commences, please close off Brea Canyon Road to through traffic from State College/Central to Tonner Canyon. This will allow the work to be done more quickly and cost effectively and eliminate the horrible traffic that will occur on Brea Canyon if you are trying to do construction while keeping the lanes open.

Thank you for your consideration of our concerns and opinions.

The Drapkowski Family
868 Grand Canyon Rd. Brea, CA 92821

Carrie & Chet Drapkowski

Salazar, Cindy

From: Duarte, Dolores@Wildlife <Dolores.Duarte@wildlife.ca.gov>
Sent: Wednesday, June 19, 2019 10:30 AM
To: Salazar, Cindy
Cc: Weiss, Eric@Wildlife; Esguerra, Margarita@Wildlife; 'state.clearinghouse@opr.ca.gov'; 'christine_medak@fws.gov'
Subject: Copy of NOP comment letter Re-Brea Canyon Road Widening Project-SCH2017051005
Attachments: pdf Brea Canyon road Widening.pdf

Ms. Salazar,
Please see attached copy for your records. Original will follow.

If you have any questions, please contact Jennifer Turner at (858) 467-2717. Thank you!

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
South Coast Region
3883 Ruffin Road
San Diego, CA 92123
(858) 467-4201
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

June 19, 2019

Ms. Cindy Salazar
Orange County Public Works
300 North Flower Street
Santa Ana, CA 92703
cindy.salazar@ocpw.ocgov.com

Subject: Comments on the Notice of Preparation of a Draft Environmental Impact Report for the Brea Canyon Road Widening Project, Brea, CA (SCH# 2017051005)

Dear Ms. Salazar:

The California Department of Fish and Wildlife (Department) has reviewed the above-referenced Notice of Preparation (NOP) for the Brea Canyon Road Widening Draft Environmental Impact Report (DEIR), dated May 17, 2019. The following statements and comments have been prepared pursuant to the Department's authority as Trustee Agency with jurisdiction over natural resources affected by the project (California Environmental Quality Act [CEQA] Guidelines § 15386) and pursuant to our authority as a Responsible Agency under CEQA Guidelines section 15381 over those aspects of the proposed project that come under the purview of the California Endangered Species Act (Fish and Game Code § 2050 *et seq.*) and Fish and Game Code section 1600 *et seq.* The Department also administers the Natural Community Conservation Planning program.

Widening is proposed along 1.4 miles of Brea Canyon Road, beginning within the City of Brea at Canyondale Drive, continuing into unincorporated Orange County (County) past Tonner Canyon Road, and running roughly parallel to Brea Canyon Channel. The project will widen the road from two to four lanes, cut the surrounding slope, install a 60-foot high retention wall, replace three bridges over the channel, modify several culvert crossings, and relocate/realign utility infrastructure. Modifications to Brea Canyon Channel are also proposed. Biological resources will be analyzed in the DEIR (pp IS-22 and IS-23).

The Department provided comments on the 2017 NOP for the Brea Canyon Road Widening, in a letter dated June 2, 2017. We offer the following comments and recommendations to assist the County in avoiding or minimizing potential project impacts on biological resources.

SPECIFIC COMMENTS

1. On August 29, 2007, a Conservation Easement Deed (CE) was granted to the County in association with mitigation for the Tonner Hills Planned Community (Instrument No. 2007000535583; Official Records of the County of Orange). Because, "[a]ltering the surface or general topography of the Conserved Land, including the building of roads," is a *Prohibited Use* of the CE (Prohibited Use 3.12; page 7), the Department recommends that the DEIR discuss, in specific terms, how the proposed project will avoid impacting lands covered by the CE. The Department is available to provide further coordination in order to assist the County in achieving avoidance.

2. The NOP states that, "[i]mplementation of the project has the potential to interfere substantially with the movement of a native resident or migratory wildlife species or with established native resident or migratory wildlife species or with established native resident or migratory corridors," and that, "...this issue will be analyzed in the [D]EIR." (page IS-23). The Department acknowledges and appreciates that subsequent analysis regarding impacts to wildlife corridors will be carried forward. We are particularly concerned regarding the maintaining and improving wildlife crossing at Tonner Canyon between the Puente and Chino Hills as it relates to the project. Given that construction will span 4.5 years (page IS-10), any analysis of temporary, permanent, or cumulative impacts to wildlife corridors should also include a discussion of temporal loss which would occur during an extended construction period. The Department recommends utilizing the Wildlife Crossings Guidance Manual (Caltrans 2007)[1] to develop mitigation measures that could bring potential project impacts on wildlife corridors to a level below significance.

GENERAL COMMENTS

3. The Department has responsibility for wetland and riparian habitats. It is the policy of the Department to strongly discourage development in wetlands or conversion of wetlands to uplands. We oppose any development or conversion that would result in a reduction of wetland acreage or wetland habitat values, unless, at a minimum, project mitigation assures there will be "no net loss" of either wetland habitat values or acreage. Development and conversion include but are not limited to conversion to subsurface drains, placement of fill or building of structures within the wetland, and channelization or removal of materials from the streambed. All wetlands and watercourses, whether ephemeral, intermittent, or perennial, should be retained and provided with substantial setbacks that preserve the riparian and aquatic values and maintain their value to on-site and off-site wildlife populations. Mitigation measures to compensate for impacts to mature riparian corridors must be included in the DEIR and must compensate for the loss of function and value of a wildlife corridor.

    a. The project area supports aquatic, riparian, and wetland habitats; therefore, a jurisdictional delineation of the creeks and their associated riparian habitats should be included in the DEIR. The delineation should be conducted pursuant to the U. S. Fish and Wildlife Service wetland definition adopted by the Department.[2] Please note that some wetland and riparian habitats subject to the Department's authority may extend beyond the jurisdictional limits of the U.S. Army Corps of Engineers.

    b. The Department also has regulatory authority over activities in streams and/or lakes that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of any river, stream, or

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1 Meese, Robert J., et al. 2007. Wildlife Crossings Guidance Manual. California Department of Transportation.

2 Cowardin, Lewis M., et al. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Department of the Interior, Fish and Wildlife Service.

lake or use material from a river, stream, or lake. For any such activities, the project applicant (or "entity") must provide written notification to the Department pursuant to section 1600 et seq. of the Fish and Game Code. Based on this notification and other information, the Department determines whether a Lake and Streambed Alteration Agreement (LSAA) with the applicant is required prior to conducting the proposed activities. The Department's issuance of a LSAA for a project that is subject to CEQA will require CEQA compliance actions by the Department as a Responsible Agency. The Department as a Responsible Agency under CEQA may consider the local jurisdiction's (lead agency) Negative Declaration or Environmental Impact Report for the project. To minimize additional requirements by the Department pursuant to section 1600 *et seq.* and/or under CEQA, the document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for issuance of the LSAA.[3]

4. The Department considers adverse impacts to a species protected by the California Endangered Species Act (CESA), for the purposes of CEQA, to be significant without mitigation. As to CESA, take of any endangered, threatened, or candidate species that results from the project is prohibited, except as authorized by state law (Fish and Game Code, §§ 2080, 2085). Consequently, if the Project, Project construction, or any Project-related activity during the life of the Project will result in take of a species designated as endangered or threatened, or a candidate for listing under CESA, the Department recommends that the project proponent seek appropriate take authorization under CESA prior to implementing the project. Appropriate authorization from the Department may include an incidental take permit (ITP) or a consistency determination in certain circumstances, among other options (Fish and Game Code §§ 2080.1, 2081, subds. (b),(c)). Early consultation is encouraged, as significant modification to a project and mitigation measures may be required in order to obtain a CESA Permit. Revisions to the Fish and Game Code, effective January 1998, may require that the Department issue a separate CEQA document for the issuance of an ITP unless the project CEQA document addresses all project impacts to CESA-listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of an ITP. For these reasons, biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for a CESA ITP.

5. To enable the Department to adequately review and comment on the proposed project from the standpoint of the protection of plants, fish, and wildlife, we recommend the following information be included in the DEIR.

   a) The document should contain a complete discussion of the purpose and need for, and description of, the proposed project, including all staging areas and access routes to the construction and staging areas.

---

3 A notification package may be obtained by accessing the Department's web site at http://www.wildlife.ca.gov/Conservation/LSA

b) A range of feasible alternatives should be included to ensure that alternatives to the proposed project are fully considered and evaluated; the alternatives should avoid or otherwise minimize impacts to sensitive biological resources. Specific alternative alignments should be evaluated in areas with lower resource sensitivity where appropriate. The alternatives are to include an "alternative [that] would impede to some degree the attainment of the project objectives, or would be more costly" (§15126.6[b] of the CEQA Guidelines). The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making" (§15126.6[f] of the CEQA Guidelines). To minimize habitat fragmentation and edge effects, the Department strongly recommends that every effort be directed at considering an alternative which is environmentally superior and clearly demonstrates avoidance and minimization of impacts to native vegetation communities and associated species to the maximum extent practicable (CEQA Guidelines, §15021[a][2]).

Biological Resources within the Project's Area of Potential Effect

6. The document should provide a complete assessment of the flora and fauna within and adjacent to the project area, with particular emphasis upon identifying endangered, threatened, sensitive, and locally unique species and sensitive habitats. This should include a complete floral and faunal species compendium of the entire project site, undertaken at the appropriate time of year. The DEIR should include the following information.

    a. CEQA Guidelines, section 15125(c), specifies that knowledge on the regional setting is critical to an assessment of environmental impacts and that special emphasis should be placed on resources that are rare or unique to the region.

    b. A thorough, recent floristic-based assessment of special status plants and natural communities, following the Department's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (see https://www.wildlife.ca.gov/Conservation/Plants/Info). The Department recommends that floristic, alliance-based and/or association-based mapping and vegetation impact assessments be conducted at the Project site and neighboring vicinity. The Manual of California Vegetation, second edition, should also be used to inform this mapping and assessment (Sawyer et al. 2008[4]). Adjoining habitat areas should be included in this assessment where site activities could lead to direct or indirect impacts offsite. Habitat mapping at the alliance level will help establish baseline vegetation conditions.

    c. A current inventory of the biological resources associated with each habitat type on site and within the area of potential effect. The Department's California Natural Diversity Data Base in Sacramento should be contacted at http://www.wildlife.ca.gov/Data/CNDDB to obtain current information on any previously reported sensitive species and habitat, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code.

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4 Sawyer, J. O., T. Keeler-Wolf and J.M. Evens. 2009. A Manual of California Vegetation, Second Edition. California Native Plant Society Press, Sacramento.

d. An inventory of rare, threatened, endangered and other sensitive species on site and within the area of potential effect. Species to be addressed should include all those which meet the CEQA definition (see CEQA Guidelines, § 15380). This should include sensitive fish, wildlife, reptile, and amphibian species. Seasonal variations in use of the project area should also be addressed. Focused species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, are required. Acceptable species-specific survey procedures should be developed in consultation with the Department and the U.S. Fish and Wildlife Service.

Analyses of the Potential Project-Related Impacts on the Biological Resources

7. To provide a thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts, the following should be addressed in the DEIR.

a) A discussion of potential adverse impacts from lighting, noise, human activity, exotic species, and drainage should also be included. The latter subject should address: project-related changes on drainage patterns on and downstream of the project site; the volume, velocity, and frequency of existing and post-project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and post-project fate of runoff from the project site. The discussions should also address the proximity of the extraction activities to the water table, whether dewatering would be necessary, and the potential resulting impacts on the habitat, if any, supported by the groundwater. Mitigation measures proposed to alleviate such impacts should be included.

b) Discussions regarding indirect project impacts on biological resources, including resources in nearby public lands, open space, adjacent natural habitats, riparian ecosystems, and any designated and/or proposed or existing reserve lands (e.g., preserve lands associated with a NCCP). Impacts on, and maintenance of, wildlife corridor/movement areas, including access to undisturbed habitats in adjacent areas, should be fully evaluated in the DEIR.

c) The zoning of areas for development projects or other uses that are nearby or adjacent to natural areas may inadvertently contribute to wildlife-human interactions. A discussion of possible conflicts and mitigation measures to reduce these conflicts should be included in the environmental document.

d) A cumulative effects analysis should be developed as described under CEQA Guidelines, section 15130. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant communities and wildlife habitats.

Mitigation for the Project-related Biological Impacts

8. The DEIR should include measures to fully avoid and otherwise protect Rare Natural Communities from project-related impacts. The Department considers these communities as threatened habitats having both regional and local significance.

9. The DEIR should include mitigation measures for adverse project-related impacts to sensitive plants, animals, and habitats. Mitigation measures should emphasize avoidance and reduction of project impacts. For unavoidable impacts, on-site habitat restoration or enhancement should be discussed in detail. If on-site mitigation is not feasible or would not be biologically viable and therefore not adequately mitigate the loss of biological functions and values, off-site mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed.

10. For proposed preservation and/or restoration, the DEIR should include measures to perpetually protect the targeted habitat values from direct and indirect negative impacts. The objective should be to offset the project-induced qualitative and quantitative losses of wildlife habitat values. Issues that should be addressed include restrictions on access, proposed land dedications, monitoring and management programs, control of illegal dumping, water pollution, increased human intrusion, etc.

11. The Department recommends that measures be taken to avoid project impacts to nesting birds. Migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (Title 50, § 10.13, Code of Federal Regulations), and sections 3503, 3503.5 and 3513 of the California Fish and Game Code. Fish and Game Code section 3503 prohibits the needless take of nests and eggs of all bird species except European starling and English sparrow; section 3503.5 prohibits take of all raptors or their eggs or nests; and section 3513 protects migratory birds in accordance with the Federal Migratory Bird Treaty Act. Proposed project activities (including, but not limited to, staging and disturbances to native and nonnative vegetation, structures, and substrates) should occur outside of the avian breeding season which generally runs from February 1-September 1 (as early as January 1 for some raptors) to avoid take of birds or their eggs. If avoidance of the avian breeding season is not feasible, the Department recommends surveys by a qualified biologist with experience in conducting breeding bird surveys to detect protected native birds occurring in suitable nesting habitat that is to be disturbed and (as access to adjacent areas allows) any other such habitat within 300 feet of the disturbance area (within 500 feet for raptors). Project personnel, including all contractors working on site, should be instructed on the sensitivity of the area. Reductions in the nest buffer distance may be appropriate depending on the avian species involved, ambient levels of human activity, screening vegetation, or possibly other factors.

12. The Department generally does not support the use of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species. Studies have shown that these efforts are experimental in nature and largely unsuccessful.

13. Plans for restoration and revegetation should be prepared by persons with expertise in southern California ecosystems and native plant revegetation techniques. Each plan should include, at a minimum: (a) the location of the mitigation site; (b) the plant species to be used, container sizes, and seeding rates; (c) a schematic depicting the mitigation area; (d) planting

schedule; (e) a description of the irrigation methodology; (f) measures to control exotic vegetation on site; (g) specific success criteria; (h) a detailed monitoring program; (i) contingency measures should the success criteria not be met; and (j) identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity.

14. The Polyphagous and Kuroshio shot hole borers (ISHBs) are invasive ambrosia beetles that introduce fungi and other pathogens into host trees. The adult female (1.8-2.5 mm long) tunnels galleries into the cambium of a wide variety of host trees, where it lays its eggs and propagates the *Fusarium* fungi species for the express purpose of feeding its young. These fungi cause *Fusarium* dieback disease, which interrupts the transport of water and nutrients in at least 58 reproductive host tree species, with impacts to other host tree species as well. With documented proximate occurrences Carbon Canyon Regional Park and Craig Regional Park, the spread of invasive shot hole borers (ISHBs) could have significant impacts in local ecosystems. Therefore, with regard to ISHBs, we recommend the DEIR include the following:

    a. a thorough discussion of the direct, indirect, and cumulative impacts that could occur from the potential spread of ISHBs as a result of proposed activities in the DEIR;

    b. an analysis of the likelihood of the spread of ISHBs as a result of the invasive species' proximity to above referenced activities;

    c. figures that depict potentially sensitive or susceptible vegetation communities within the project area, the known occurrences of ISHB within the project area (if any), and ISHB's proximity to above referenced activities; and

    d. a mitigation measure or measure(s) within the DEIR that describe Best Management Practices (BMPs) that bring impacts of the project on the spread of ISHB below a level of significance. Examples of such BMPs include:

        i. education of on-site workers regarding ISHB and its spread;
        ii. reporting sign of ISHB infestation, including sugary exudate ("weeping") on trunks or branches and ISHB entry/exit-holes (about the size of the tip of a ballpoint pen), to the Department and UCR's Eskalen Lab;
        iii. equipment disinfection;
        iv. pruning infected limbs in infested areas where project activities may occur;
        v. avoidance and minimization of transport of potential host tree materials;
        vi. chipping potential host materials to less than 1 inch and solarization, prior to delivering to a landfill;
        vii. chipping potential host materials to less than 1 inch, and solarization, prior to composting on-site;
        viii. solarization of cut logs; and/or
        ix. burning of potential host tree materials.

    Please refer to UCR's Eskalen lab website for more information regarding ISHBs: http://eskalenlab.ucr.edu/pshb.html.

We appreciate the opportunity to comment on the referenced NOP. Questions regarding this letter and further coordination on these issues should be directed to Jennifer Turner of the Department at (858) 467-2717 or via email at jennifer.turner@wildlife.ca.gov.

Sincerely,

Gail K. Sevrens
Environmental Program Manager
South Coast Region

ec: Christine Medak (U.S. Fish and Wildlife Service)
Scott Morgan (State Clearinghouse)

Salazar, Cindy

From: Thomas Kwan <kwanfam1@gmail.com>
Sent: Tuesday, June 18, 2019 8:18 PM
To: Salazar, Cindy
Subject: comments re: IP 17-046 Brea Canyon Widening Project
Attachments: Comments regarding the project associated with Draft EIR. 2019docx.pdf

My comments regarding the IP 17-046 EIR scoping are attached.

Comments regarding the project associated with Draft EIR #628

These comments are made pursuant to CEQA Guidelines Section 15082(b). The proposed project calls for the widening of a 1.75 mile section of Brea Canyon Road to add an additional lane in each direction for a total of four lanes across.

As the Notice of Preparation of a Draft EIR ("Notice") states, the project would necessitate widening curves, building three bridges that cross the creek, erecting retaining walls along steep sloped areas, and adding a traffic signal at the intersection of Tonner Canyon and Brea Canyon Roads.

We believe the project has significant adverse impacts on the environment that can't be mitigated, and therefore the project should not be approved as it poses significant public health and safety concerns.

Those familiar with Brea Canyon Road where the widening is proposed knows that there is heavy traffic in the mornings going southbound and worse in the afternoons of weekdays travelling north on Brea Canyon from State College until just before the 57 Freeway intersects with Brea Canyon Road. The afternoon traffic often comes to a stop at Canyondale. The main reason for the traffic is the slow or backed up traffic on the 57 Freeway, whereby motorists get off the 57 Freeway and travel north on Brea Canyon. Many of the motorists that travel on Brea Canyon do not live in Brea and travel through Brea from other regions including Los Angeles, Riverside, and San Bernardino counties to work in Orange County.

In essence, the proposed project while attempting to ease traffic congestion will add to traffic congestion because the 57 Freeway is more than saturated with traffic and adding two lanes on an alternative south-north corridor will not reduce traffic congestion at all but add to traffic congestion in Brea, especially on State College and Brea Canyon Roads. Additional lanes and on-off ramp improvements added to the 57 Freeway between Yorba Linda Blvd and Lambert Rd have not eased congestion on the 57. Residents of Brea on bad traffic days where the 57 is totally jammed often have to wait in traffic as much as 20-25 minutes to get from Lambert and State College to Brea Boulevard and State College. This additional traffic will bring about higher volume of traffic going through Brea which means more traffic, accidents, wear and tear of local roads, traffic noise and air pollution. The health and safety of Brea residents will be significantly and adversely impacted.

Residents who live in the triangle north of State College, east of Brea Canyon and west of the 57 are adversely affected the most. Overflow traffic from the 57 causes motorists to travel on residential roads to bypass the wait for the right turn at St College westbound to Brea Canyon northbound on many weekday afternoons. The cut through traffic often amounts to bumper to bumper car snakes winding up the curvy and hilly streets in that triangle. The cut through traffic also occurs on Grand Canyon from Canyondale to Brea Canyon. Similar situations already exist in LA County, for example Sepulveda Blvd paralleling the 405, Cahuenga Blvd and Barham Blvd paralleling the 101 freeway, etc. The Waze app has

empowered and enabled the cut through. Additional concentrated air pollution, noise pollution, traffic gridlock, serious accidents with bodily harm are the result of the cut through.

While it is an important concern that there be efficient traffic flow for the benefit of all of Orange County, it is a serious mistake to think that widening the lanes would facilitate traffic in Orange County. Already key intersection in Brea are gridlocked or near gridlocked at peak traffic hours, and bringing more traffic through Brea would result in total gridlock much more often. Most of the travelers on Brea Canyon do not live in Orange County, they are residents of LA, San Bernardino or Riverside Counties working in Orange County which pays higher wages than the latter two counties. While this may benefit Orange County employers, the cost is gridlock for Brea resulting in lost business revenues and worse increased public safety hazards in pollution, physical and mental illness from driving in bad traffic, residents breathing bad air and suffering neuropathic conditions from noise and other pollution.

The project itself is estimated to take 4.5 years and require removal of existing slopes as much 50 feet in height. This enormous amount of earth being removed itself has an adverse environmental impact to the area. During the project is very likely that the two lane highway will be reduced to one lane or even closed during construction. The massive removal of dirt will necessitate massive retaining walls and create a valley- like part of the road that is used by many bicyclists, hikers and natural fauna whose lives will be imperiled by the altered terrain. Also the fresh water creek that runs along Brea Canyon Road that sustains the natural wild life of plants and animals native to the area will be polluted by the traffic pollution run off including motor oil, transmission and brake fluid, and battery acid leaking and other spills, and natural rain runoff over the polluted roads. We request that the draft EIR carefully considerate these comments and address all of these concerns, and whether the adverse impacts can be adequately mitigated, if at all.

Tom and Winnie Kwan

Salazar, Cindy

From: Joan Licari <jlicari2013@gmail.com>
Sent: Wednesday, June 19, 2019 12:30 PM
To: Salazar, Cindy
Subject: Comments on NOP of a DEIR (EIR No. 628) for the Brea Boulevard/Brea Canyon Road Widening Project (IP 17-046) SCH # 2017051
Attachments: NOP comment ltr June 17 2019 (1).doc

Ms. Salazar:
Please find attached comments submitted by the San Gabriel Valley Task Force of Angeles Chapter of Sierra Club relative to the NOP of a DEIR (EIR No. 628) For the Brea Boulevard/Brea Canyon Road Widening Project.

Joan Licari, Chair
San Gabriel Valley Task Force
Angeles Chapter of Sierra Club

3250 Wilshire Blvd #1106, Los Angeles, CA 90010

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San Gabriel Valley Task Force

June 17, 2019

Cindy Salazar, Senior Planner Orange County
(OC) Development Services/Planning
300 N. Flower Street
Santa Ana, CA 92703
Cindy.Salazar@ocpw.ocgov.com

Re: Comments on NOP of a DEIR (EIR No. 628) for the Brea Boulevard/Brea Canyon Road Widening Project (IP 17-046) SCH # 2017051

Dear Ms. Salazar:

The San Gabriel Valley Task Force of the Angeles Chapter of Sierra Club thanks you for an opportunity to comment on the Notice of Preparation (NOP) of an Environmental Impact Report (EIR) for the Brea Canyon Road Widening Project (Project) released May 17, 2019. The Task Force was organized by the Angeles Chapter of the Sierra Club in 1999 to work with San Gabriel Valley cities and political leaders to seek ways to create a more livable environment for valley residents while preserving or improving natural habitat. Since that time, we have worked with cities and Los Angeles County/Orange County to create projects that promote low impact outdoor recreation along the urban rivers in San Gabriel Valley, in the Puente Chino Hills, and the foothills of the San Gabriel Mountains.

The project description includes the following:

The Orange County Public Works proposes widening the Brea Boulevard/Brea Canyon Road (Hereafter referred to as Brea Canyon Road) from a two-lane road to a four-lane road with additional lanes for bikes. The Project also includes a raised median that varies from 12-foot to 14-foot or a 6-foot wide median with a concrete barrier. Additionally, the Project involves replacing three bridges over Brea Canyon Channel, extends or reconfigures 13 drainage culverts, alters drainage channels from riprap trapezoidal to concrete rectangular, and includes installing two new traffic signals. The Project is approximately 7,600 linear feet (up to 1.4 miles) in length. Construction is estimated to last approximately 4.5 years beginning in the year 2020.

We strongly support the efforts to create a wildlife corridor extending from the Whittier Narrows, through the Puente Chino Hills into the Santa Ana Mountains. As a result, we are very concerned about aspects of the Brea Canyon Road Widening Project as proposed. Over the years, there has been significant investment in time and public funding to preserve over 30,000 acres of land as open space and to establish this corridor through purchase of lands and management efforts of the Puente Hills Native Habitat Authority, planning for parkland on the now closed Puente Hills Landfill, and the creation of the Chino Hills State Park. The Brea Canyon Road Project is located at a critical point within the corridor that, if broken, could limit movement of wildlife from the western to eastern portions of the corridor. This disruption cannot be allowed to occur.

The Draft Environmental Statement must address the following issues:

Biological Concerns:

- A thorough biological survey must be completed of the Puente-Chino Hills Wildlife Corridor of the flora and fauna with movements of wildlife through the project area to anticipate biologic impacts of this project. The region is designated as a biodiversity hot spot in North America and a genetic reserve for the continent which makes it regionally and globally significant.

  An interruption in movement of animal movements/migration patterns/reproductive activities can create islands of genetic isolation, dislocation of traditional animal movements and establishment of ranges. These movements locally are already severely limited today due to surrounding local urban development. The DEIR should fully evaluate interference of movement of any native species, including migratory patterns or that actions that impede the use of wildlife nursery sites. Appropriate avoidance strategies or mitigation must be included.

- The DEIR must fully evaluate impacts to protected species. Inventories must be taken during appropriate times of the year and seasonal conditions to fully understand ranges of habitat and increase probable detection of breeding areas. Of critical concern are possible impacts to the coastal California gnatcatcher as they have been documented as occurring west and east of the proposed Project, as well as impacts to coastal sage scrub as this Project is within the United States Fish and Wildlife Service's designated Critical Habitat for the coastal California gnatcatcher.

- The DEIR must fully evaluate potential impacts to riparian areas and wetlands.

  The project has the potential to negatively impact aquatic species and nursery sites. The Project involves replacing three bridges over Brea Canyon Channel, extends or reconfigures 13 drainage culverts, alters drainage channels from riprap trapezoidal to concrete rectangular, and includes installing two new traffic signals.

  Impacts of this construction over the 4.5 proposed years and beyond must be fully discussed. The DEIR should provide comprehensive vegetation mapping conducted in a non-drought year. Appropriate avoidance or mitigation must be included. Impacts to species due to further fragmentation of riparian resources should be evaluated and mitigated.

- Increase in traffic with the associated noise and light must be evaluated thoroughly for impacts to wildlife and their movements. Currently this area is extremely porous for wildlife movement via at-grade crossings, under the bridges, or through the culverts. Increased traffic volume and construction resulting from the Project will decrease the potential for these successful wildlife crossings Safe pathways must be developed for wildlife to travel east-west through the area. Evaluation of potential passageways under the highway and wildlife overpasses must be considered for mitigation. The Project area occurs adjacent to a current critical corridor linkage--the only viable crossing beneath Highway 57 for deer, mountain lion, bobcat, and other species. Mitigation measures must be advanced to accommodate these movements.

- The DEIR should fully analyze impacts of lighting, noise and activity at night, sundown and early morning on wildlife movement and offer appropriate avoidance strategies or mitigation. This Project has the potential to substantially negatively impact wildlife and their movement through this area. Several

hours of non-activity per day during the construction phase should be considered, particularly during night, sundown and early morning hours, providing a time for wildlife who may utilize the area to feed or move about.

- Consideration of the impacts of staging areas on wildlife and destruction of natural vegetation during construction must be included. Needs for mitigation should be included where necessary.

Cultural Resources:

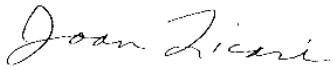
- A thorough cultural resources study must be conducted. The Southern California region was one of the more densely populated Native American areas in the United States. Artifacts have been found in the Puente-Chino Hills area and village sites are found in the local region. In addition, the Portola Expedition passed through the project region. Local tribal groups must be contacted including the Kizh and Tongva for input and appropriate field study.

Population and Housing:

- The DEIR needs to fully analyze the potential for this Project to directly or indirectly induce growth in this area. We disagree with the NOP finding that there is no impact and believe there is the potential for significant negative impacts. Shell-AERA, the owner of property immediately to the north of this Project within Los Angeles and Orange Counties, has proposed development of 3,600 residences, three commercial centers and a golf course in an application to Los Angeles County Planning Department. The Brea Road Widening Project has the potential to induce growth associated with this AERA project.

We again thank you for the opportunity to comment on the NOP. The Angeles Chapter will continue to evaluate the DEIR and submit additional written comments as the environmental and permitting process continues.

Respectfully submitted,



Joan Licari, Chair
San Gabriel Valley Task Force,
Angeles Chapter of Sierra Club
jlicari2013@gmail.com

Salazar, Cindy

From: Gary Busteed <gary.busteed@gmail.com>
Sent: Thursday, June 6, 2019 11:22 PM
To: Salazar, Cindy
Subject: Comments on Brea Canyon Road Improvements

Ms. Salazar,

Thank you again for the opportunity to comment on the proposed road improvements in Brea Canyon. I have provided comments at the public meeting, but I wanted to further expand upon my comments from that meeting.

Regarding traffic, your purpose and need for the project is to reduce traffic congestion within Brea Canyon along Brea Canyon Road. The solution that OC is proposing is only partially addressing the traffic issue in that you only consider up to the border with Los Angeles County. The solution is not a Brea Canyon Road-Orange County solution and a Brea Canyon Road-Los Angeles County solution, but it is one in the same. By conducting a partial CEQA analysis in Orange County alone appears to be a piecemealing or segmentation of the larger traffic issue. Additionally, most of the traffic will dump into Diamond Bar off of Diamond Bar Blvd. This is already a highly congested thoroughfare as vehicles are traveling from Diamond Bar Blvd to Grand Avenue to Chino Hills for the purpose of avoiding the freeway traffic. I encourage you to reach out to the City of Diamond Bar as well, since Diamond Bar is in the process of revising their General Plan which does not include this added potential for added traffic congestion.

Wildlife Corridor - The proposed road widening and barriers along Brea Canyon would impact the wildlife corridor in this area. The Puente Hills has few locations where wildlife, particularly larger mammals, can cross from Tonner Canyon to the Puente Hills. The bridges and vegetated shoulders along this section of Brea Canyon does provide some cover and ability for wildlife movement. I encourage Orange County to look at studies by Caltrans in the Santa Monica Mountains where there was analysis of wildlife crossings and use of exclusion devices. I think it is important to consider wildlife movements in light of increased traffic speeds and volumes proposed by this project.

Safety - This canyon is used on weekends by bicyclists. As you had noted in your presentation there are a number of accidents within this canyon. However, one outcome of this road improvement could also include additional bicycle traffic. Therefore, there should be some consideration of dedicated bike paths or lanes in order to facilitate the safety of the bicyclists. Also, there are already existing bike paths and lanes once Brea Canyon Road enters the City of Diamond Bar. You should consider the continuity of the these bike paths.

Waterway improvements - it is not clear in your presentation what the connection is in terms of how the hardening of the waterway is related to the road improvements being proposed. There was some mention of flooding along this canyon road, but this has not been the case in recent storm events. I would like to see a better justification for this improvement and its connection to the road. I would also like to see other alternatives to a hardened water structure. As stated above, this is a wildlife corridor and a vegetated stream channel would better serve this purpose.

I appreciate the opportunity to provide comments. Please feel free to reach out if you have any additional questions or follow up.

Thank you,

Gary Busteed
20850 Gold Run Blvd.
Diamond Bar 91765.

Salazar, Cindy

From: srbz@aol.com
Sent: Wednesday, June 19, 2019 4:36 PM
To: Salazar, Cindy
Subject: Comments for Draft EIR - Brea Boulevard/Brea Canyon Road Widening Project (IP 17-046)

Ms Salazar,

Comments on the Initial Study for the Draft EIR.

1.
Brea Canyon Rd and Tonner Canyon Rd (accessed by Brea Canyon Rd) are used as bypasses for congestion and/or accesses to the 57 and 60 freeways.

The EIR should study how the *57/60 Freeways Confluence project* will affect the proposed Brea Canyon Rd widening.
The *57/60 Confluence project* plans to improve flow on the 57 and 60 freeways.
That will reduce diversion to Brea Canyon Rd, lessening the need for widening.

2.
The EIR should look at alternatives other than the proposed project and "no project".
2a. I could find no documentation on the OCTA website, the City of Brea website or in a general search, to show where LOS F occurs, and how the proposed project will improve LOS to "A". The EIR should include this information, including turning movement volumes.
I did find a 2018 ADT of 16,000 cars on Brea Canyon Rd from the OCTA website.
(Here https://octa.net/pdf/2018-ADT.pdf)

2b. A rural 2-lane road should easily handle 16,000 cars per day.
If the LOS problems are occurring at intersections, such as Tonner Canyon Rd, 57 Freeway access, etc., alternative projects could include just signalizing those intersection(s).

The main impediment to traffic flow in the corridor is the signal at Brea Blvd and Central/State College.
The proposed project will not improve volume flow through that intersection.
It will only create more stacking room for vehicles in the two proposed extra lanes, giving the appearance of congestion reduction, with no actual flow improvement.

2c. The Initial Study says on IS-5:
"There are also existing safety issues along Brea Canyon Road within the road limits. The existing turn with a radius curve of 700 feet is considered to be very sharp and unsafe for the posted (i.e., operational) speed of 55 MPH."

The proposed project on IS-6 says:
The horizontal alignment of the existing 700-foot radius curve would be increased to a minimum radius curve of 785 feet, with a superelevation of 9 percent…….. The 785-foot radius curve with 9 percent superelevation would provide for a comfortable horizontal curve

speed of 45 MPH…..

a substantial roadway cut slope of up to 60 feet or more in height is required to increase the radius curve and sight distance (length of roadway visible to a driver). Slope stability associated with the proposed slope cut would be addressed through the construction of an approximately 60-foot-high retaining wall. It should be noted that the retaining wall would obstruct sight distance on the inside of the horizontal curve, reducing the posted operating speed of the curve to 45 MPH."

The EIR should study an alternative which superelevates the existing two land road, or simply changes the speed limit sign through that area to 45 MPH to improve safety.

3.
The Initial Study Checklist says:

"X Hydrology

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

LESS THAN SIGNIFICANT IMPACT. ….. The Project would not have the potential to directly change the rate or flow of groundwater because it would not interfere with any known aquifers. No improvements are proposed that would substantially interfere with groundwater recharge, as increases in impervious surfaces associated with the widened road would continue to drain to the adjacent Brea Canyon Channel."

In fact, replacing natural drainage or pervious bottom channels with concrete lined channels prevents groundwater recharge in that area.
The widened road, which does reduce pervious area, will drain to the Brea Canyon Channel, but in the area of concrete lining, it will no longer percolate into the ground.

Natural drainage in a descending topography percolates in one area, and can then daylight down stream providing water to wildlife.
The natural drainage and percolation create areas that stay wetter longer, supporting plant life into the dry season and providing food and shelter for all kinds of wildlife.

The roadway is in a canyon bottom, where water naturally concentrates. The combination of increasing impervious area by widening the road and addition of concrete lined channels will significantly alter the hydrology of the area.

The EIR should cover this significant impact.

4.
The Initial Study Checklist says:

"XIV. POPULATION AND HOUSING

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

NO IMPACT. The Project involves widening an existing road and is intended to improve congestion and safety. There is no proposed residential or commercial/business component that could result in substantial population growth in the area. Construction workers would either be existing County employees or come from the existing local labor pool. Implementation of the Project would not result in the generation of new permanent jobs and would not contribute to any substantial population growth. Therefore, Project implementation would not induce growth, either directly or indirectly. No impact would occur. This issue will not be analyzed further in the EIR."

In fact, widening and signalizing Brea Canyon Rd through an area of vacant or rural land is both an inducement and enticement for growth.
Further, the inducement and enticement for growth by the widening extends to the vacant and rural lands adjacent to Tonner Canyon Rd.

One of the first constraints looked at in a proposed residential or commercial development of vacant land is traffic.
By widening and signalizing Brea Canyon Rd a major constraint on potential future development on nearby vacant lands is alleviated.

The EIR should examine the potential significant impact of inducement to growth of the project and extra traffic capacity created.

Thanks

Stephen Blagden
2118 Citron Rd
La Habra Heights, CA

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Salazar, Cindy

From: Doug Barcon <dougbarcon@gmail.com>
Sent: Tuesday, June 18, 2019 11:41 PM
To: Salazar, Cindy
Subject: Comment on Draft EIR on Brea Blvd / Brea Canyon Road Widening Project

Dear Ms. Salazar,

I am a resident of Diamond Bar who has driven Brea Canyon Road on numerous occasions from Diamond Bar to Orange County or from Orange County to Diamond Bar to bypass the heavy traffic on SR-57. Occasionally, I enter SR-57 southbound from the Tonner Canyon on-ramp. When northbound SR-57 is gridlocked somewhere south of Diamond Bar Blvd., I will exit at Tonner Canyon Road to Brea Canyon Road. That route has become more difficult because of the number of vehicles exiting at Tonner Canyon. Most of the vehicles fail to stop at the stop sign at Brea Canyon Road to turn right and a few vehicles every couple of minutes go straight and turn right from the left turn lane. Placing signal lights at that intersection of Brea Canyon Road and Tonner Canyon Road will improve safety and probably improve traffic flow. However, without law enforcement presence, drivers will still not stop or not make an illegal right turn from the left turn lane.

In regard to the draft Environmental Impact Report and the median, if the project is going forward, I recommend the 12-foot to 14-foot slightly raised median because it will allow wildlife to cross Brea Canyon Road from the east side to the west side or from the west side to the east side and still provide a safety buffer for vehicles traveling in opposite directions on the roadway. The alternative solution with a 6-foot wide median with a concrete barrier will prevent wildlife from crossing the road and can trap wildlife along the median. Brea Creek and Brea Channel provides shelter and water for wildlife where is it covered and protected by oxygen-generating and carbon dioxide-aborbing vegetation and trees. Vegetation should not be removed. Widening Brea Canyon Road must take this into account.

I understand that Shell-Aera owns the property to the north and west of Brea Canyon Road and proposes developing that property and building 3,500 homes on it. Considering the likelihood of such homes being 4-5 bedrooms as generational-family homes, I can foresee four vehicles per home and between three and four being driven daily. I would estimate 12,500 vehicles being driven daily and 25,000 daily round trips or perhaps more onto Brea Canyon Road to and from that development. While the widening of Brea Canyon Road will help in that area, it will lead to increased Vehicle Miles Traveled (replacement for LOS) and more congestion where the roadway narrows to two lanes and when traffic signals are mistimed. The additional northbound traffic on Brea Canyon Road will also impact Diamond Bar and shift congestion northward from the SR-57 overcrossing to the intersection of Brea Canyon Road and Diamond Bar Blvd and worsen traffic at that intersection.

When I viewed the Brea Canyon Road area with Google Earth, I noticed a road that leads up the hillside on the west side of Brea Canyon Road just north of the southbound SR-57 on-ramp. On top of that topped hilly area are more than 100 white truck bodies without their custom truck beds in neat rows. The area appears to be storing those truck bodies for a manufacturer or dealer prior to being sold and customized.

I would not support the Shell-Aera development and would support maintaining that land as open space as a wildlife corridor continuation from Chino Hills through Tres Hermanos Ranch and Tonner Canyon to Whittier Narrows. The riparian property and oak woodlands should be preserved in perpetuity.

Respectfully,

Dr. Douglas Barcon
23535 Palomino Dr., Suite 545
Diamond Bar, CA 91765

Salazar, Cindy

From: Andrea Gullo <agullo@habitatauthority.org>
Sent: Monday, June 24, 2019 2:00 PM
To: Salazar, Cindy
Cc: Michelle Mariscal; Wheadon, Nathan
Subject: Comment letter for NOP
Attachments: 2019 Brea Canyon Road NOP PHHPA comment letter June 2019 FINAL.pdf

Cindy,

Please see the attached comment letter for the Brea Rd widening project.

Thank you, and I can be reached for further discussion at any time.

Andrea Gullo
Executive Director
562.945.9003
Puente Hills Habitat Preservation Authority
Endowment Provided by the Puente Hills Landfill
7702 Washington Avenue, Suite C
Whittier, CA 90602
Visit Us | *Like Us* | *Follow Us*

Puente Hills
Habitat Preservation Authority
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June 20, 2019

Cindy Salazar, Senior Planner
Orange County (OC) Development Services/Planning
300 N. Flower Street
Santa Ana, CA 92703
Cindy.Salazar@ocpw.ocgov.com

Re: Comments on NOP of a DEIR (EIR No. 628) for the Brea Boulevard/Brea Canyon Road Widening Project (IP 17-046) SCH # 2017051005

Dear Ms. Salazar:

The Puente Hills Habitat Preservation Authority (Habitat Authority) appreciates the opportunity to comment on the Notice of Preparation (NOP) of an Environmental Impact Report (EIR) for the Brea Canyon Road Widening Project (Project) released May 17, 2019. Thank you for the time extension to accept comments as indicated in the attached letter dated May 31, 2019. The Board of Directors for the Habitat Authority met on June 20, 2019 and is submitting these comments for your consideration.

The Habitat Authority is a joint powers authority established pursuant to California Government Code Section 6500 *et seq*. with a Board of Directors consisting of the City of Whittier, County of Los Angeles, Sanitation Districts of Los Angeles County, and the Hacienda Heights Improvement Association. According to its mission, the Habitat Authority is dedicated to the acquisition, restoration, and management of open space in the Puente Hills for preservation of the land in perpetuity, with the primary purpose to protect the biological diversity. Additionally, the agency endeavors to provide opportunities for outdoor education and low-impact recreation.

This proposed Project is located at a critical chokepoint within the Puente-Chino Hills Wildlife Corridor. Biologically, this area preserves a microcosm of the California Floristic Province, an identified biodiversity hot spot in North America and a genetic reserve for the continent which makes it regionally and globally significant. In the Puente Hills, the Habitat Authority manages the open space that it owns and that owned by the City of Whittier and Sanitation Districts totaling over 3,870 acres which lie within the Cities of Whittier and La Habra Heights, as well as in the County unincorporated area known as Hacienda Heights.

The Habitat Authority opposes the proposed Project as currently described; however, we remain open to discussing impact avoidance, mitigation, design and other relevant matters as they are explored further.

We request that the draft environmental impact report (DEIR) address the importance of complementing and enhancing the public investment already made in the region for the benefit of the community so it does not diminish the biological value of nearby public lands. There has been a considerable public investment in the Puente Hills. The Habitat Authority has received $64 million of public funds from the Puente Hills Landfill to contribute toward its mission statement. Other public funds include $17 million from voter-approved Los Angeles County Proposition A for the City of Whittier's use for acquisition in the hills. The Habitat Authority was given a portion of those funds for acquisition, and invested over $30.3 million of its own funds for acquisition for the purpose of biological preservation. Additionally, the Habitat Authority has invested over $3.5 million in native habitat restoration, and over $20 million in operations and facilities. Other public agencies such as the Orange County Waste and Recycling and the City of Brea have also invested in habitat restoration efforts in the Puente Hills Preserve totaling over $6.5 million. Furthermore, the Habitat Authority has a long-term endowment of over $31 million for ongoing management. Overall, at least $100 million public dollars have been invested into the hills.

We request that the proposed Project be evaluated thoroughly in the DEIR so as to not cause significant negative impacts to wildlife movement and the health of the ecosystem. The ecological sustainability of the Puente Hills Preserve is dependent on the nearby and adjacent open space lands. Overall, we are especially concerned that this Project has the potential to biologically isolate the Preserve and other public lands to their detriment by restricting, limiting and/or eliminating wildlife movement between the Chino and Puente Hills.

Our full comments are attached in Exhibit A.

Thank you for your consideration of our comments on the NOP. Feel free to contact me or Andrea Gullo, Executive Director, at (562) 945-9003 or agullo@habitatauthority.org for further discussion. Also, please maintain our agency on the contact list for this planning process.

Sincerely,

Mike Hughes
Chair

cc: Board of Directors
Citizens Technical Advisory Committee
Hills for Everyone
Wildlife Corridor Conservation Authority

Comments on NOP Brea Boulevard/Brea Canyon Road Widening Project
Exhibit A

Brief Project Description
The Orange County Public Works proposes to widen Brea Boulevard/Brea Canyon Road (hereafter referred to as Brea Canyon Road) from a two-lane road to a four-lane road with additional lanes for bikes. The Project also includes a raised median that varies from 12- to 14-feet wide, or a six-foot wide median with a concrete barrier. Additionally, the Project involves replacing three bridges over Brea Canyon Channel, extends or reconfigures 13 drainage culverts, alters drainage channels from riprap trapezoidal to concrete rectangular, and includes installing two new traffic signals. The Project is approximately 7,600 linear feet (up to 1.4 miles) in length. Construction is estimated to last approximately 4.5 years beginning in the year 2020.

Detailed Comments on the NOP are as follows:

The NOP did not fully describe the baseline setting. Covering more than 30,000 acres of land, the well-studied Puente-Chino Hills Wildlife Corridor, which this Project is within, supports a wide variety of habitats and vegetation that provides habitat for a unique assemblage of plants and animals. This corridor is widely recognized for its regional importance for wildlife movement (Conservation Biology Institute 2005, and citations therein), yet it occurs in an area that is nearby existing development and subject to associated edge effects. This wildlife corridor serves several ecological functions, including live-in habitat for wildlife with small home ranges and move-through habitat for migrating species, dispersing juveniles, and species with large territories; food, hunting grounds, cover, and breeding grounds; safe passage and refugia in the event of a large disturbance such as wildfires; contributes to species diversity; and maintains the transfer of genetic material ensuring healthy and sustainable populations of both animals and plants. Further, the Project area occurs directly adjacent to a critical corridor linkage, identified as "*the only viable crossing beneath Highway 57 for deer, mountain lion, bobcat, and other species"* (Conservation Biology Institute 2005). The Project has significant potential to degrade the functionality of this critical linkage point.

Environmental Impacts Checklist:

IV. Biological Resources
a) Species, habitat and protected areas impacts: *The DEIR needs to fully explore the impacts to protected species and offer avoidance and mitigation measures.* The Proposed Project has the potential to significantly impact protected species and Species of Special Concern, including nesting raptors, songbirds, amphibians, reptiles and bats. Inventory surveys of biological resources need to be conducted to inform the development of the DEIR; repeat biological surveys must be conducted during appropriate times of the year and during favorable conditions to increase probability of detection (e.g., surveys for southwestern pond turtle should not be initiated during a below-average rainfall year).

The DEIR should include the requirement of protocol surveys of coastal California gnatcatchers as a mitigation measure prior to construction activities. Of particular concern are potential

impacts to the coastal California gnatcatcher, as it has been documented occurring to the west and east of the proposed Project, as well as impacts to coastal sage scrub as this Project is within the United States Fish and Wildlife Service's designated Critical Habitat for the coastal California gnatcatcher. Consultation with the appropriate regulatory agencies is required.

b) Riparian habitat or sensitive natural communities: *The DEIR should provide comprehensive vegetation mapping conducted in a non-drought year and fully analyze impacts to riparian habitat or other sensitive natural communities and offer appropriate avoidance strategies or mitigation.* We agree with the NOP that the Project has the potential to have a substantial adverse effect on riparian habitat or other sensitive communities.

c) Wetlands: *The DEIR should provide comprehensive evaluations to habitat and species associated with wetlands and offer appropriate avoidance strategies or mitigation.* We agree with the NOP that the Project has the potential to have a substantial adverse effect on wetlands. Additionally, down-stream impacts as a result of construction activities and long-term effects of the Project should be evaluated.

d) Wildlife corridor impacts: *The DEIR should fully evaluate the Project's potential to "interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites" and offer appropriate avoidance strategies or mitigation.* We agree with the NOP that the Project has the potential to interfere substantially with the movement of native resident or migratory wildlife species or with established native resident or migratory wildlife corridors. It also has the potential to negatively impact aquatic species and nursery sites which also need to be analyzed. Currently this area is extremely porous for wildlife movement via at-grade crossings, under the bridges, or through the culverts. The DEIR needs to evaluate the effect of increased vehicle capacity, and therefore traffic volume, resulting from the Project, including the reduced potential for successful wildlife crossings both directly (via road mortality) and indirectly (via avoidance caused by increases in associated traffic noise; Shannon et al. 2015). The addition of temporary and permanent lighting, traffic signals, concrete barriers, and raised medians will greatly impede wildlife usage of this area (Clevenger and Kociolek 2013). Permeable medians that allow at-grade wildlife crossings when traffic volume is low, but discourage vehicle cross-over should be considered and fully explored. Further, riparian areas may function as linear movement corridors for some species of wildlife. Impacts to such species due to further fragmentation of riparian resources should be evaluated.

The DEIR should examine and offer project improvements that facilitate safe wildlife passage at this critical chokepoint. Although the Project is not directly adjacent to land managed/owned by the Habitat Authority, we are a part of the Puente-Chino Hills Wildlife Corridor and are dependent on a viable connection to the east. This Project has the potential to wholly cut-off that biological connection to the east which would result in isolating the Puente Hills leading to eventual ecosystem collapse. Upon their replacement, the three bridges over Brea Canyon Channel should be designed to include features that have been shown to facilitate wildlife movement, such as sound-reducing materials, earthen floor, appropriate dimensions, and a strip of higher elevation land that would remain dry during times of peak water flow in the channel. The Project should explore the incorporation of at least one additional wildlife undercrossing

bridge to further increase permeability and ensure wildlife populations to the west of the Project site do not drop below self-sustaining levels. Additionally, the locations for these wildlife crossing structures should be scientifically explored to ensure they are located at key corridor linkage points.

The incorporation of safe passage for wildlife into transportation project designs has been well documented as providing safer roads for motorists and financial cost benefits associated with fewer wildlife-vehicle collisions. Below are useful resources to facilitate the DEIR analysis efforts:

- *https://roadecology.ucdavis.edu/research/projects/wildlife-guidance* UC Davis Road Ecology Center's website containing wildlife crossing manuals and wildlife-vehicle conflict data collection including Federal Highway Administration's Wildlife Crossing Structure Handbook (2011) and Caltrans Wildlife Crossings Guidance Manual (2009)
- *https://icoet.net/* International Conference on Ecology and Transportation 2019
- *https://www.fs.fed.us/wildlifecrossings/index.php* Federal Wildlife Crossings Toolkit

The DEIR should fully analyze how the construction staging locations and duration will impact wildlife and their movement and offer appropriate avoidance strategies or mitigation. Currently the staging areas identified are at the channel bridges which most likely provide the safest wildlife passage available. Blocking these areas with equipment and constant activity will impede wildlife movement unless conducted in a phased manner.

The DEIR should fully analyze lighting, noise and activity at night on wildlife movement and offer appropriate avoidance strategies or mitigation. The constant activity of this Project has the potential to substantially negatively impact wildlife and their movement through this area. Several hours of non-activity per night during the construction phase should be considered, thus providing a reprieve to wildlife who may utilize the channel and surrounding areas to feed or disperse.

The DEIR should also fully explore project alternatives to lessen biological impacts including the "no project" alternative.

V. Cultural Resources

a) Historical and Archeological Resources and Human Remains: *The DEIR should fully analyze the potential impacts to historical and archeological resources as well as to human remains.* We agree with the NOP that there is the potential for significant impacts to these resources. This area is designated as a passage area of Don Gaspar de Portolá as indicated by the existing roadside monument established in 1952. This year marks the 250th anniversary of the Portolá Expedition, the first recorded European land entry and exploration of the interior of the present-day U.S. state of California.

IX. Hazards and Hazardous Materials

b) Accidental release: *The DEIR needs to analyze all measures that that can be taken to avoid the accidental release of hazardous materials such as oil into the environment with the movement and relocation of oil pipelines in the area.* We agree with the NOP finding that there is the potential for significant impacts to the environment. Should any spills be generated as a result of this Project, adequate funding needs to be in place to fully mitigate and remedy this unnecessary impact.

XIV. Population and Housing

a) Induce growth: *The DEIR needs to fully analyze the potential for this Project to directly or indirectly induce growth in this area.* We disagree with the NOP finding that there is no impact, and believe there is the potential for significant negative impacts. The property owner immediately to the north of this Project within Los Angeles and Orange Counties, Shell-AERA, has submitted a project application with Los Angeles County Planning Department that includes development of 3,600 residences, three commercial centers and a golf course. The Brea Road Widening Project has the potential to facilitate growth including that associated with the AERA project.

XVII. Transportation

b) Conflict or inconsistency with CEQA Guidelines section 15064.3, subdivision (b): *The DEIR needs to elucidate the transportation impacts for this Project, including an evaluation of the vehicle miles traveled as a result of improving traffic congestion from LOS F to LOS A, the Project's key purpose.* The analysis should include cross-over consideration for contributing impacts to wildlife movement and growth inducement.

Additional Comments

The Habitat Authority supports the comments on the first release of the NOP previously made by Shute, Mihaly & Weinberger representing Hills for Everyone in their letter dated June 2, 2017 and those dated June 17, 2019. We also support the Wildlife Corridor Conservation Authority comments dated June 11, 2019.

References

Clevenger AP, Kociolek AV. 2013 Potential impacts of highway median barriers on wildlife: State of the practice and gap analysis. Environmental management. 52(5):1299-312.

Conservation Biology Institute. 2005 Maintaining Ecological Connectivity Across the "Missing Middle" of the Puente-Chino Hills Wildlife Corridor. Prepared by WD Spencer.

Shannon G, McKenna MF, Angeloni LM, Crooks KR, Fristrup KM, Brown E, Warner KA, Nelson MD, White C, Briggs J, McFarland S. 2016 A synthesis of two decades of research documenting the effects of noise on wildlife. Biological Reviews. 91(4):982-1005.

Puente Hills Habitat Preservation Authority

Endowment Provided by the Puente Hills Landfill

May 31, 2019

Cindy Salazar, Senior Planner
Orange County (OC) Development Services/Planning
300 N. Flower Street
Santa Ana, CA 92703
Cindy.Salazar@ocpw.ocgov.com

Re: Comments on NOP of a DEIR (EIR No. 628) for the Brea Boulevard/Brea Canyon Road Widening Project (IP 17-046) SCH # 2017051005

Dear Ms. Salazar:

The Puente Hills Habitat Preservation Authority (Habitat Authority) is a joint powers authority established pursuant to California Government Code Section 6500 *et seq*. with a Board of Directors consisting of the City of Whittier, County of Los Angeles, Sanitation Districts of Los Angeles County, and the Hacienda Heights Improvement Association.

The Habitat Authority would like to comment on the above-mentioned project with a published deadline of June 19, 2019. Our Board of Directors next meets on June 20, 2019, and through communications with Nathan Wheadon, OC Strategic Communications Manager, he has confirmed that the County can accept our comments through June 24, 2019. The Habitat Authority previously submitted comments on this project in 2017 expressing the importance for safe passage of wildlife through this area.

Thank you for the time extension of our comments on the NOP. Feel free to contact me at (562) 945-9003 or agullo@habitatauthority.org for further discussion. Also, please maintain our agency on the contact list for this planning process.

Sincerely,

Andrea Gullo
Executive Director

c: Board of Directors
Citizens Technical Advisory Committee
Nathan Wheadon

Salazar, Cindy

From: Lugaro, Julie M@DOT <julie.lugaro@dot.ca.gov>
Sent: Wednesday, June 19, 2019 3:18 PM
To: Salazar, Cindy
Cc: Shelley, Scott@DOT
Subject: Comment Letter for the Brea Canyon Road Widening Project 6-19-19
Attachments: Comment Letter for Brea Canyon Road Widening 6-19-19.pdf

Hello Ms. Salazar,

I have attached the Comment Letter for the Brea Canyon Road Widening Project.

A hardcopy of the letter will be coming by mail.

If there are any questions, please feel free to contact me.

Thank you,

Julie Lugaro, M.S.
Associate Transportation Planner
California Department of Transportation;
Caltrans District 12
1750 E. 4th Street
Santa Ana, CA. 92705
(657) 328-6368

DEPARTMENT OF TRANSPORTATION
DISTRICT 12
1750 EAST FOURTH STREET, SUITE 100
SANTA ANA, CA 92705
PHONE (657) 328-6368
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TTY 711
www.dot.ca.gov

Making Conservation a California Way of Life.

June 19, 2019

Cindy Salazar
OC Public Works
OC Development Services
Planning Division
300 N. Flower Street
Santa Ana, CA. 92703

File: IGR/CEQA
SCH# 2017051005
12-ORA-2019-01137
Brea Canyon Road Widening

Dear Ms. Salazar,

Thank you for including the California Department of Transportation (Caltrans) in the review of the Initial Study (IS) for the Brea Canyon Road Widening in the City of Brea. The mission of Caltrans is to provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability.

Brea Canyon Road would be widened from two to four lanes (two lanes each direction) with 11-foot minimum width lanes, shoulders that would vary from 6-foot to 10-foot wide that could serve as bike lanes, and a raised median that varies from 12-foot to 14-foot or a 6-foot wide median with a concrete barrier.

The Brea Canyon Road Widening Project is located partially in the City of Brea, from Canyondale Drive to the north City limit, and partially in unincorporated Orange County, from the north City limit to approximately 1,200 feet northeast of Tonner Canyon Road, a total length of approximately 7,600 linear feet or 1.4 miles. In addition, approximately 1,100 feet of Brea Canyon Channel from 600 feet north (upstream) of Central Avenue to 1,700 feet north (upstream) of Central Avenue within the City of Brea. Part of the project lies directly adjacent to SR 57, which is overseen by Caltrans.
With Caltrans being a responsible agency, we have the following comments:

System Planning:

1. Please provide the Traffic Impact Study (TIS) for Caltrans to review and provide comments.

2. The document notes that bicycle access/safety will be improved by providing a shoulder on both sides of the road. However, we recommend that a dedicated bicycle facility be developed for this project, such as Class II lanes. This increases safety for bicyclists, considering that current posted speeds on the road are 55 mph.

3. Please ensure that appropriate measures are taking to ensure the safety of bicyclists in the project area. These measures may include improved connections to existing bicycle facilities nearby.

Traffic Operations:

1. The project proposes to widen Brea Canyon Rd from Canyondale Drive (City of Brea) to the north of Tonner Canyon Road. Adjacent to the northern terminus of this segment, Brea Canyon Rd intersects the SB SR-57 on-ramp at an uncontrolled intersection. Traffic Operations requests that this intersection be analyzed using the methodologies of the latest Highway Capacity Manual (2016). If there is a need for controlling the intersection, refer to the Caltrans Policy Directive on Intersection Control Evaluation (ICE). Also, a Traffic Management Plan (TMP) would need to be developed to address impacts on SR-57 facilities during construction.

Environmental:

1. With the IS indicating that the project has the potential to impact both biological and cultural resources adversely, please submit the EIR for this project for review and comment.

2. For all projects resulting in 0.4 hectares (1 acre) or more of soil disturbance or otherwise subject to the NPDES program, the Contractor will develop, implement, and maintain a Storm Water Pollution Prevention Plan (SWPPP) conforming to the requirements of the Caltrans Specification Section, "Water Pollution Control", the Department's Statewide NPDES Permit, the General NPDES Permit for Construction Activities, and the Storm Water Quality Handbooks "Storm Water Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual", and "Construction Site Best Management Practices (BMPs) Manual", and subsequent revisions. In addition, the SWPPP must conform to the requirements of the SWRCB Resolution No. 2001-046, the Sampling and Analytical Procedures (SAP) Plan.

3. Any work performed within Caltrans right-of-way (R/W) will require discretionary review and approval by Caltrans, and an encroachment permit will be required for any work within the Caltrans R/W prior to construction.

Please continue to coordinate with Caltrans for any future developments that could potentially impact State transportation facilities. If you have any questions, do not hesitate to contact Julie Lugaro at 657-328-6368 or Julie.lugaro@dot.ca.gov.

Sincerely,

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

Salazar, Cindy

From: Cynthia Robin Smith <diamondbarbeautiful@gmail.com>
Sent: Wednesday, June 19, 2019 4:03 PM
To: Salazar, Cindy
Subject: NOP Comments Brea Cyn Road
Attachments: BreaCynRoadCommentsMaster.pdf; DBNaturalCommunitiesMapCorrected.pdf; Induced-Travel-Technical-Investigation-TASK-3-FINAL-4.24.16-2.docx; WVCHotspotsBreaCyn2019.png

TO: Ms. Cindy Salazar, Sr. Planner, Orange County Development & Planning

RE: Brea Canyon Road Widening Project NOP Comments

Greetings Ms. Salazar,

Attached please find NOP comments and attached resource exhibits for the Brea Canyon Road widening project, due today, by 5 p.m.

Thank you for the opportunity to comment.

C. Robin Smith
Diamond Bar - Pomona Valley Sierra Club Task Force
Cynthia "**Robin**" Smith, Editor, Research & Development, Naturalist
Diamond Bar Is Beautiful Blog: www.diamondbarisbeautiful.com
California Native Trees, Landscapes; Wildlife Habitat Conservation
Diamond Bar - Pomona Valley Sierra Club Task Force, Chair
A Public Benefit, Non-Profit Organization
324 S. Diamond Bar Blvd., #230
Diamond Bar CA 91765
909-861-9920 Desk 951-675-6760 Cell

Diamond Bar – Pomona Valley Sierra Club Task Force
Angeles Chapter

June 19, 2019 [delivered electronically]

TO: Ms. Cindy Salazar, Sr. Planner
Orange County Development Services & Planning
300 N. Flower Street
Santa Ana, CA 92703 eMail: Cindy.Salazar@ocpw.ocgov.com

Notice of Preparation Comments Brea Boulevard/Brea Canyon Road Widening Project SCH # 2017051005

Project Outline: The Orange County Public Works proposes to widen the Brea Boulevard/Brea Canyon Road (Hereafter referred to as Brea Canyon Road) from a two lane road to a four lane road with additional lanes for bikes. The Project also includes a raised median that varies from 12-foot to 14-foot or a 6-foot wide median with a concrete barrier. Additionally, the Project involves replacing three bridges over Brea Canyon Channel, extends or reconfigures 13 drainage culverts, alters drainage channels from riprap trapezoidal to concrete rectangular, and includes installing two new traffic signals. The Project is approximately 7,600 linear feet (up to 1.4 miles) in length. Construction is estimated to last approximately 4.5 years beginning in the year 2020.

Dear Ms. Salazar,

The Diamond Bar – Pomona Valley Task Force of the Angeles Chapter of Sierra Club is grateful for the opportunity to comment on the Brea Canyon Road Widening project.

The Diamond Bar – Pomona Valley Task Force was formed to work with local cities, Los Angeles County and political leaders to seek ways to create a more livable environment in the San Gabriel Valley by advocating conservation planning of local wildlife habitats, regional biodiversity, (California Native trees, plant communities) and passive recreational opportunities for residents.

We are particularly interested in the protection and creation of wildlife corridors and natural, green infrastructure within our region. We recognize their ecological values beyond local borders. Our natural resources have been sorely impacted by urban development and are critical elements to preserving regional character, quality of life and stabilizing climate disruptions, which affects the local population and beyond. Therefore, we offer the following comments and questions regarding the NOP.

Ecological Function & Location

The proposed Project is located at a critical chokepoint within the Puente-Chino Hills Wildlife Corridor. This area preserves a microcosm of the California Floristic Province, one of the world's 36 "biodiversity hotspots." It is a significant genetic reserve regionally, continentally and globally. The project will also potentially impact wildlife movement in the City of Diamond Bar. (Exhibit A, Hamilton Biological Resources map)

Potential Negative Impacts to Natural Communities

We agree with the NOP, which states the Project may have a potential and substantial adverse effect on riparian habitat and other sensitive, natural communities. Therefore, the DEIR should provide comprehensive vegetation mapping conducted in a non-drought year and fully analyze impacts to riparian habitat or other natural communities and offer appropriate avoidance strategies or mitigation.

Rare & Sensitive Species Mapped

The California Natural Diversity Database, iNaturalist and eBird wildlife mapping resources, report California Gnatcatcher, Coastal Cactus Wren, Least Bell's Verio and the Free-tailed Bat are present and distributed in the Project Area. Bats are known to nest under bridges. These Federally Protected and sensitive species will be impacted.

Questions: Where are the ground-truthed evaluation of these species in your project plan? What are the mitigation plans for loss of habitat and species? CEQA requires a detailed, written mitigation plan BEFORE project approval. A thorough discussion and protocol surveys of natural resources, are presently absent from the Project Proposal. Will this lack be remedied?

Wildlife-Vehicle Collisions

The California Roadkill Observation System indicates the entire Brea Canyon area, including the road and the 57 fwy, is a high "Wildlife-Vehicle Conflict" (WVC) ***hotspot***. See the website http://www.roadecology.ucdavis.edu (Exhibit B WVC map)

Questions: WVC hotspots pose significant safety risks to humans and wildlife. Where are these evaluations in the Project proposal? Has the project considered wildlife collision impacts? Since the 57 fwy overpass is a chokepoint for wildlife circulation, will there be consideration of a protected wildlife passageway included in the project? If not, why not?

Induced Travel, Traffic Forecasting

The 2016 "Induced Travel Technical Investigation" prepared by Fehr & Peers and Caltrans, explains the science behind road widening, causing an increase in traffic rather than reduction, and the new requirement Induced Travel calculations ought to be factored in infrastructure and land use projects. It also explains the deficiencies in current travel forecasting models used in the transport profession. (Exhibit C Fehr & Peers report)

Questions: Has the Project considered the current, best traffic sciences? The proposed Project Plan appears to be missing the data exhibiting Induced Travel evaluations. Has Induced Travel been considered? If not, why not?

Conclusion

Overall, the Diamond Bar – Pomona Valley Sierra Club Task Force agrees with the observations and comments offered by the Wildlife Corridor Conservation Authority, Puente Hills Habitat Preservation Authority, Hills for Everyone and fellow Sierra Club task forces. At this point, we strongly think the current proposal under-reports existing conditions, omits evaluations, studies and strategies critical to best practices and a successful remedy to traffic congestion in the project area.

We request the current proposal be re-evaluated with appropriate correctives.

Again, thank you for the generous opportunity to comment. We hope the questions posed will be considered in the planning process.

Respectfully Submitted,

C. Robin Smith, Chair
Diamond Bar – Pomona Valley Sierra Club Task Force
324 S. Diamond Bar Blvd. #230
Diamond Bar, CA 91765
DBPVSierraClubTaskForce@gmail.com
909-861-9920 Desk

Resources

Attached Exhibits: **A**: Hamilton Biological Resources map, **B:** WVC map, **C:** Fehr & Peers report

Salazar, Cindy

From: H Lovejoy <slpsmile.hl@gmail.com>
Sent: Saturday, June 8, 2019 11:20 AM
To: Salazar, Cindy
Subject: Brea Canyon Road widening

Hi Cindy,

I live at the top of Puente in Brea. I have grave concerns about all the simultaneous, major road construction taking place. I have 2 students that will be attending Brea Olinda High School next year. I was already concerned about them driving safely to school, since there is only one entrance to the school and it will impacted by the 57 construction. Regardless of how many environmental impact Studies have been done, I don't think there's any way to anticipate the number of people that will be trying to take Brea Canyon due to the fact that the 57 is under construction. This puts everyone of our high school students driving to school in grave Danger. Our particular family is under much more strain as a result of the Brea Canyon expansion. My husband and I work in Ontario. With Fullerton Road under construction at the 60, the 57 under construction in 2 months and the widening of the Brea Canyon Road, people like me will not be able to get to the Inland Empire at all. What are we to do quit our jobs or add hours to our drive? It is irresponsible for our city or any other City impacted by these road construction changes to complete multiple projects of this magnitude at the same time. There have to be alternate routes and detours when major construction is going on. Where do you propose to put these detours? There will be no alternative routes.

The most frustrating thing about a project such as this is that we as Brea residents have no say about it because the decisions have already been made without our input.

Please carefully consider my concerns and mention them at your next meeting. This is not simply about future convenience or the ability to have more housing in the Hills or any of the other concerns that people are raising but there have to be valid and reasonable detours available during the major construction of the 57 freeway and Brea Canyon is already that voluntary detour for many people.

Thank you,

Heather Lovejoy
714-393-9405
980 Birchcrest Ave.
Brea CA 92821

Salazar, Cindy

From: Greg Kerby <gjkerby@gmail.com>
Sent: Tuesday, June 4, 2019 5:25 PM
To: Salazar, Cindy
Subject: Brea Canyon Road Widening

I was in attendance at the meeting of 5-29-19 and stand in agreement with many of those who have questioned the necessity of road expansion. I believe that OCPW has been short sighted with respect to the overall picture.

1. There has been no formal co-ordination with L.A. County with respect to the nearly one mile of road from the county line to the 57 freeway, to say nothing of the remaining one mile or so of road to Diamond Bar Blvd. In fact, it is not known if there is even a master plan for that section of roadway, let alone a time table. Expanding the road half way through the canyon is like building half a bridge.

2. The proposal presented to the citizens of Brea in 2017 drew the four lane road to the county line. The 2019 proposal cuts it short just beyond the Tonner Canyon Road junction, about .3 miles short of the county line. WHY? The remaining roadway is straight, flat, with room on both sides for widening without cutting into hillsides. How much money is being saved?
It was explained at the meeting that roadway expansion is done in segments. This makes sense if the expansion is 5 or 10 miles. It makes no sense for .3 miles. Ten years from completion, how expensive will it be finish a .3 mile stretch of road when (if ever) L.A. County finally completes its own expansion? Put simply, penny wise, pound foolish. If this goes forward then do it right.

3. The morning backup actually begins at the intersection of the four lane Diamond Bar Blvd. where the left turn to Brea Canyon Road narrows to one lane in both directions. Combined with the southbound 57 traffic exiting at Brea Canyon is where the gridlock begins. In short, a comprehensive solution is to expand all two lane traffic from Diamond Bar Blvd. through Canyon to Central/State College. Thus, a four lane thoroughfare will exist all the way to Harbor Blvd. Once again, this calls for working in concert with L.A. County. Anything less is a half measure and simply relocates the choke points. After all, the widening of Brea Canyon Road is an effort to relieve the congestion created by L.A. and San Bernadino County commuters using the canyon to bypass the gridlocked 57 freeway. So let's get our neighbors involved and share in the cost.

4. Safety: I have lived in Brea Canyon for 42 years. My home is just off
Canyon Country. I am not a NIMBY. We live with the pm congestion and sometimes have to seek back door avenues into our own tract to get home.
We welcome traffic solutions. We also love our two lane road. Beginning at the county line is a sharp curve some of us locals call dead man's curve. Over the last 40 years we have seen many white wooden crosses and flower vases. Some drivers seem to ignore the 55 mph speed limit dropping to 35 mph at that point. A median with a crash rail would probably save lives.
Respectfully submitted,

Gregory Kerby
1115 Niguel Canyon Way
Brea 92821
gjkerby@gmail.com

Salazar, Cindy

From: Traylor, Dee@DOC <Dee.Traylor@conservation.ca.gov>
Sent: Wednesday, June 19, 2019 11:54 AM
To: Salazar, Cindy
Cc: state.clearinghouse@opr.ca.gov; Hansen, Christine@DOC; Adame, Vanessa@DOC; Habib, Naveen@DOC; Perez, Jan@DOC
Subject: SCH: No. 2017051005
Attachments: Brea Canyon Road Widening Response Letter 2019.pdf

Dear Ms. Salazar:

Attached is a copy of the California Division of Oil, Gas, and Geothermal Resources response letter for Notice of Preparation, Draft Environmental Impact Report (EIR No. 628), Brea Boulevard/Brea Canyon Road Widening Project (IP 17-046), County of Orange, SCH: No. 2017051005.
Please contact Curtis Welty at (562) 637-4400 or email dogdist1@conservation.ca.gov if you have any question.

Regards,

Dee Traylor
Office Assistant
Division of Oil, Gas, and Geothermal Resources
Southern District

California Department of Conservation
3780 Kilroy Airport Way Suite 400
Long Beach, CA 90806
Main: (562) 424-0202
E: Dee.Traylor@conservation.ca.gov

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June 19, 2019

VIA EMAIL

Cindy Salazar, Senior Planner
OC Development Services
300 N. Flower Street
Santa Ana, CA 92702-4048
Email: Cindy.Salazar@ocpw.ocgov.com

Dear Ms. Salazar:

NOTICE OF PREPARATION
DRAFT ENVIRONMENTAL IMPACT REPORT (EIR NO. 628)
BREA BOULEVARD/BREA CANYON ROAD WIDENING PROJECT (IP 17-046)
COUNTY OF ORANGE
SCH: NO. 2017051005

The Department of Conservation's Division of Oil, Gas, and Geothermal Resources (Division) has reviewed the above-referenced project for impacts with Division jurisdictional authority. The Division supervises the drilling, maintenance, and plugging and abandonment of oil, gas, and geothermal wells in California. The Division offers the following comments for your consideration.

The project area is in Orange County and lies entirely within the Brea-Olinda administrative oil field boundary. Division records indicate the nearby presence of oil field production facilities and multiple active, idle, and plugged oil and gas wells. Division information can be found at: www.conservation.ca.gov. Individual well records are also available on the Division's web site, or by emailing dogdist1@conservation.ca.gov.

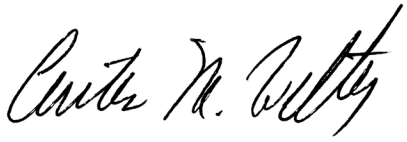
The scope and content of information that is germane to the Division's responsibility are contained in Section 3000 et seq. of the Public Resources Code, and administrative regulations under Title 14, Division 2, Chapters 2, 3 and 4 of the California Code of Regulations.

If any wells, including any plugged, abandoned or unrecorded wells, are damaged or uncovered during excavation or grading, remedial plugging operations may be required. If such damage or discovery occurs, the Division's district office must be contacted to obtain information on the requirements and approval to perform remedial operations.

The possibility for future problems from oil and gas wells that have been plugged and abandoned, or reabandoned, to the Division's current specifications are remote. However, the Division recommends that a diligent effort be made to avoid building over any plugged and abandoned well.

Questions regarding the Division's Construction Site Well Review Program can be addressed to the local Division's office in Long Beach by emailing DOGDIST1@conservation.ca.gov or by calling (562) 637-4400.

Sincerely,



Curtis M. Welty, PG
Associate Oil and Gas Engineer

cc: The State Clearinghouse in the Office of Planning and Research
Email: state.clearinghouse@opr.ca.gov

Christine Hansen, DOC OGER
Email: Christine.Hansen@conservation.ca.gov

Vanessa Adame, DOC OGER
Email: Vanessa.Adame@conservation.ca.gov

Naveen Habib, DOC OGER
Email: Naveen.Habib@conservation.ca.gov

Jan Perez, DOGGR CEQA Unit
Email: Jan.Perez@conservation.ca.gov

Environmental CEQA File

Salazar, Cindy

From: Teresa C <motherofava13@gmail.com>
Sent: Tuesday, June 18, 2019 11:44 AM
To: Salazar, Cindy
Subject: Brea Canyon Road Widening Project

Dear Ms. Salazar,
I am a 22 year resident of Brea. I vehemently oppose the widening of Brea Canyon Road. The project will create more traffic on that road. It will encourage freeway users to use Brea Canyon. A signal at Tonner Canyon Road will create more traffic and a longer wait. I often drive that road and I know to reduce my speed when there is a blind curve. I suggest lowering the speed limit. I have never experienced flooding on that road. I do not want my tax money to pay for something that is not necessary.
Thank you for your time and consideration,
Teresa Crescione

Salazar, Cindy

From: Nanci Oneill <ravenhillbrea@att.net>
Sent: Sunday, June 16, 2019 6:16 PM
To: Salazar, Cindy
Subject: Brea Canyon Road Widening Project

Hello,

We are residents of Brea near Brea Canyon. We attended the meeting two years ago. We were opposed to the Brea Canyon Widening Project then and sent an email stating our objections and we're still opposed to it now.

Part of our decision to move to Brea was the beauty of feeling like you are in the country, with the winding road, the cows and the beautiful landscape. Not to mention the beautiful bridges. It's nice to have a bit of the country in the city. The canyon road makes us Breans feel like we are a city apart from the next city, Diamond Bar because we do live among the hills. We were told at the meeting the road does not have "sight lines." It's a canyon! What canyon road does not wind? Take a drive down Carbon Canyon Road, it's a canyon there too and guess what, sometimes there are no "sight lines!"

As was said two years ago and I'm saying again; a bottle neck is a bottle neck is a bottle neck no matter where it is on the Canyon Road. Widening the road will bring more traffic, more racing, and more accidents. The traffic will increase simply because the road is wider. More people will look at is as a way to avoid the traffic on the 57. The racing will continue to occur because the people driving the cars will continue to try to get in front of the car in front of them, especially as the road nears the bottleneck. The accidents will continue to occur because of the speeders who are always trying to beat the other cars, again especially when the bottleneck is approaching. Nothing is going to change except more traffic and more accidents, not less.

What is the point of spending the money to increase our lovely canyon road to four lanes for only 1.4 miles when LA County has no plans (same as two years ago) to increase the the canyon road when it is in LA County? Also, the road will bottleneck well before the freeway entrance. What is the point of that?

What about the wildlife that lives in the area? What about the residents who have homes bordering the actual road who will lose property value and have to deal with even more noise then they do now?

A big concern of ours is the notice went out to the homes that are on either side of the canyon road, not to all of Brea. The notice should also be sent out to all of Brea and Diamond Bar. Is OC Public Works trying to sneak something by us? You are not looking out for the best interest of the residents or of the community who drive that road. Our feeling is this is a done deal and the OC Public Works is just playing with the residents and the community, our input on your "scoping" meeting is just a way of pretending that we have any say in this matter. It's pretty sad.

Another huge concern with the widening project is that making the canyon wider will aid the developers who want to build 3500 homes in those hills. You would be giving them just what they want and need to push the development.

Lastly, in addition a substantial concern is the Cal Trans construction starting work on the 57/Lambert Blvd on/off ramp next month. If OCPW starts this needless construction which will last four years at the same time the Cal Trans construction is happening. How are we suppose to get out of town? Does anyone even care?

Sincerely,

Jeff and Nanci Hill
Ponderosa Avenue, Brea

Salazar, Cindy

From: orville culp <oculp@sbcglobal.net>
Sent: Wednesday, June 19, 2019 5:22 PM
To: Salazar, Cindy
Subject: Brea Canyon Road Widening Project Public Scoping Meeting Comment Card

Orville Culp
Home owner
1107 Grand Canyon
Brea, CA 92821

714-529-0936

Hello Cindy,

As a Brea resident who's house backs up to Brea Blvd I believe that expanding the road will only cause more traffic, more noise and a bigger safety threat from cars racing over the posted speed limit just to beat the next car in line to the bottleneck that has just been moved out further in the canyon. The road was not intended to be two more lanes of the freeway and we should make every effort to keep the cars that are just passing through on the freeway. If someone has a need to actually do business in Brea there are other off ramps for their use so I doubt it will reduce business in Brea to leave the road one lane each way. I do however believe that there were some improvements that would make sense to explore to improve safety and usability of the canyon road while at the same time improving the lives of the people who live near this roadway.

A. Adding a signal at the Tonner Canyon interchange.
B. Keeping the one lane each way but adding a wider or separated bike lane or walking path on each side.
C. Widening the 57 freeway by at least two lanes.
D. Improving the bridges to include wildlife corridor or passageway.
E. Limit the truck access or truck size.
F. Sound wall barrier for homes between State College and the canyon.
G. Time the project to not start until after the Lambert project has been completed.

Salazar, Cindy

From: Emily Chen <echen@octa.net>
Sent: Tuesday, June 18, 2019 4:42 PM
To: Salazar, Cindy
Subject: Brea Canyon Road Widening Project Initial Study Comment Letter
Attachments: 6.18.19 Brea Canyon Road Widening Comment Letter.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Ms. Cindy Salazar,

Attached is the comment letter for the Initial Study for the Brea Canyon Road Widening Project.

Thank you!

Emily Chen
Planning Intern
Orange County Transportation Authority
(714) 560-5912

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June 18, 2019

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Ms. Cindy Salazar
Senior Planner
OC Development Services/Planning
300 N. Flower Street
Santa Ana, CA 92703

Subject: **Notice of Preparation of a Draft Environmental Impact Report for the Brea Canyon Road Widening Project**

Dear Ms. Salazar:

Thank you for providing the Orange County Transportation Authority (OCTA) with the Notice of Preparation of a Draft Environmental Impact Report for the Brea Canyon Road Widening Project (Project). The following comments are provided for your consideration:

- IS-9, Section Intersection Signalization, Striping, and Signage states "Per Orange County MPAH, Brea Canyon Road would be designed for a minimum design speed of 55 MPH, with the exception of the roadway between Canyondale Drive and the proposed 785-foot horizontal curve. In this segment, the design speed would match the existing speed limit within the City of Brea of 45 MPH. The retaining wall around the 785-foot horizontal curve would obstruct sight distance on the inside of the curve, reducing the recommended operational speed to 45 MPH, which would require yellow advisory speed signs." Please note that the MPAH Guidance does not specify design speeds for the number of through lanes. Please revise as needed.

- Per the County of Orange "Major Riding & Hiking Trails and Off-Road Paved Bikeways" map, a future "Off-Road Paved Bikeway" along or parallel to the project roadway is planned (OC Parks Regional Trail Maps http://www.ocparks.com/civicax/filebank/blobdload.aspx?BlobID=8223). Please clarify in the project analysis if the proposed project will install a Class I (off-street) bikeway or a similar quality facility.

Throughout the development of this project, 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.

Sincerely,

Charlie Larwood
Planning Department Manager

Salazar, Cindy

From: Sherry Farley <sfarley@spritewater.com>
Sent: Monday, June 10, 2019 2:55 PM
To: Salazar, Cindy
Cc: Judi Smedley
Subject: Brea Canyon Road Widening Project - Portola Monument Relocation

Hello Cindy,
I am writing on behalf of Grace Parlor No. 242, Native Daughters of the Golden West.
Native Daughters of the Golden West is a fraternal organization of California born individuals dedicated to preserving the history of California. The State organization began in 1886. Instituted June 2, 1927, Grace Parlor No. 242, Fullerton, is a local chapter of this organization. My grandmother, mother and multiple generations of cousins all belonged to this chapter too. I have been entrusted with the history of the landmarks dedicated by our local chapter.
In 1906 the Native Daughters of the Golden West and the Association of California Woman's Clubs began the research and marking of the El Camino Real (I have tons more history on this subject, but I won't bore you with the details). During this research, it was found that Portola's initial expedition did not follow the same path as the later "well-known" trail that was marked by mustard plants on each side. The research used translations of Don Gaspar Portola's diaries and diaries from Miguel Costansó and Frey Juan Crespi. The diaries led to placing an El Camino Real Bell in the middle of Harbor Blvd in Fullerton and the campsite in Brea Canyon. The diaries related camping near Indians and a small body of water. The monument site was chosen using early local maps (on display at the Brea museum). The chosen location was known to have a small body of water at the time and a grove of pepper trees, perfect for Portola's exhibition to establish a campsite. In addition, I am told Indian and Spanish artifacts were also recovered from this location. I have older photographs of the monument standing below the pepper trees, surrounded by a simple white fence. The small body of water has long since dried up and the grove of pepper trees is almost gone. This was the first marking of a historic landmark by our chapter done June 2, 1932. The plaque was contributed by a Member of the Native Daughters of the Golden West, Saddie Winn-Brainard from Sacramento. I do not have records for the name of the artist.
Each chapter in the State organization has a History and Landmarks Committee. For Grace Parlor No. 242, the 1932 Committee was chaired by Mrs. Carrie Earl McFadden-Ford. Mrs. Ford was daughter of William M. McFadden (1842-1902) and Sarah Jane Earl McFadden (1846-1908), both teachers. Mr. McFadden's leadership and organizational skills are well documented in the founding of the city of Fullerton and Orange County.
Mrs. Ford (1867-1961) was a prominent pioneer, a charter member of Grace Parlor No. 242 and Parlor President in 1930-1931. I have no doubt that Mrs. Ford participated in the research for the current location. She was quite well educated, had a good business sense, and was very active in social and civic circles.
The original plan was to place the marker a little more to the east of the current location. However, having the monument on private property would not make it accessible for educational purposes. So it was decided, with the help of the city of Brea, to place it alongside the road.
While we understand the need to widen Brea Canyon Road, I do hope you will help to preserve the history of this location by maintaining the monument and marker. On behalf of Grace Parlor No. 242, Native Daughters of the Golden West, we would be happy to work with the County of Orange to re-locate and re-dedicate the monument somewhere in the same vicinity. With an organization of over 4,000 Members state wide, we would greatly appreciate the help to maintain our efforts to preserve the history of this area and our beautiful golden State. Please don't hesitate to phone anytime. I can be reached at 714-920-8051
Sherry Farley, Past Grand President
Native Daughters of the Golden West – Grace Parlor No. 242
C: 714-920-8051
www.NDGW.org

NATIVE DAUGHTERS
D.G.W.
OF THE GOLDEN WEST

Salazar, Cindy

From: Lee Paulson <Lee@Silverlightpress.com>
Sent: Friday, June 7, 2019 1:19 PM
To: Salazar, Cindy
Subject: Brea Canyon Road Widening Comments

Hi Cindy,

Below, please find my comments regarding the proposed widening of Brea Canyon Rd, as proposed at the recent scoping meeting. Please place these comments in the public record and acknowledge their receipt.
Thanks you.

My name is Lee Paulson. I am a resident of Diamond Bar. And I have serious concerns about the current plan to widen Brea Canyon Road.

Currently, the 57 freeway spends much of its day as a congested mess.
As a result of that congestion, many commuters exit the 57 and use Brea Canyon Rd in hopes of finding less congested traffic. Sadly, the 57 congestion, especially northbound in Orange County, will only get worse, not better, over time. While it is true that there is are planned improvements to the 57/60 interchange, the fact remains that, even when these improvements have been completed, the northbound 57 will still end up being a five lane freeway in Orange County reduced to a three lane freeway through the 57/60 interchange. (Note1) This will be a minor improvement over the current five lane freeway being reduced to 2 lanes, however, this minor improvement won't do much to reduce northbound 57 congestion during my lifetime.

This means that the pressure on Brea Canyon Road, as an alternative commuting choice, will remain high and get steadily worse in the coming years. I believe it was assumed by the engineers, who designed the proposed Brea Canyon Road widening project, that by increasing the capacity of that road by one lane in each direction congestion would be lessened.

However, that has been shown, especially in situations like this, to be a false assumption. It is a false assumption because of something called induced travel. Given the magnitude of the 57 congestion, when capacity of Brea Canyon Road is increased, that increased capacity will invite more people to use Brea Canyon Rd in their attempts to avoid congestion on the 57. Brea Canyon Rd will continue to attract more traffic volume until the level of congestion is equal or worse than it is now.

As the project stands, all it will accomplish when completed is to create even more congestion on Brea Canyon Rd as two busy lanes of northbound traffic merge into one just after the intersection with
Tonner Canyon Rd. There is no question the current one lane version of
Brea Canyon is busy during rush hour. But it is not a congested parking lot like the 57. It is the merging of lanes on the 57/60 interchange, from five into two, which causes congestion all the way back from Diamond Bar to Brea during the afternoon rush hour. Similarly, it will be the merging of lanes on Brea Canyon Rd from two into one created by this project which will make congestion on Brea Canyon even worse than it is now if the project is completed as presented.

At the scoping meeting, planners from the highway department suggested that this project would be one of several in their attempts to widen Brea Canyon to four lanes all the way into Diamond Bar. If Brea Canyon Rd were ever widened to four lanes from Brea into Diamond Bar, all that would be created is even longer congested backups. Specifically, the entire route between Brea and Diamond Bar would turn into a congested parking lot during rush hour, just like the northbound 57. This will be true because Diamond Bar does not have the transportation infrastructure to accommodate that much additional traffic coming in to its already congested streets. Diamond Bar already has serious issues with cut

through traffic coming off the 57/60 interchange, and our streets during rush hour are nearly impassible as it is during those times.

Los Angeles County Master Plan of Highways currently does not show any planned improvements on Brea Canyon Rd for the foreseeable future (Note 2), as Los Angeles County's portion of Brea Canyon is slated to remain a two lane secondary highway (Note 3). Given that this is the case, one has to question why the Orange County transportation folks have decided to upgrade Brea Canyon Rd to four lanes at all. What's the point?

Instead, I recommend an alternate, counter-intuitive plan. Instead of increasing capacity on Brea Canyon Rd, consider reducing it. Make it less attractive for commuters to use Brea Canyon Rd as a 57 alternative route. Fix the bridges, install a light at the Tonner Canyon intersection, and other bottlenecks, such as Canyon Country Rd, but keep it two lanes and keep the lanes narrow, as narrower lanes tend to reduce
speeds, and design any bridges to accommodate wildlife crossing.
Adopting this alternative plan will tend to reduce the cut through traffic as much as possible and keep more of it on the 57. It will also maintain the current scenic esthetic, allow for easier wildlife crossing and cost much less.

The real conversation we need to be having, with respect to reducing congestion on both the 57 and Brea Canyon Rd is creating a real fix for the 57/60 interchange, not the band-aid approach currently in progress.
We need all five lanes of northbound traffic in Orange county allowed to
flow unimpeded through that intersection. If that were to occur, it
would do more for reducing congestion through this important north/south corridor than anything else we could do.

Bottom line to all of this is please, please, please, dump the piecemealing approach you have taken with project. I urge you to table this project and any others which relate to Brea Canyon Rd until they can be part of a regional vision that will actually reduce congestion.
To do otherwise, will simply make the lives of countless regional residents worse instead of better, and waste precious time, effort and money.

Another alternative suggestion: Since Caltrans appears to be directing its resources elsewhere, take the funds you have set aside for this project of widening Brea Canyon Rd and instead place it in a GoFundMe campaign. Then redirect your efforts to see if we can't raise enough money to fix the 57/60 interchange in a way which will actually benefit the regionally important 57 corridor instead of keeping it a perpetually clogged mess.

Notes:
1. See map of future freeway lanes, page 37. Notice that the portion of the 57 going through the 57/60 interchange is designated to be only three lanes for the foreseeable future.
http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS_HighwaysArterials.pdf

2. See map of planned Los Angeles County road improvements. Brea Canyon Rd is not marked for improvement.
http://dpw.lacounty.gov/ldd/lddservices/streetandbridge/docs/hwy_s.pdf

3. Los Angeles County general plan mobility element. See page 5, Secondary Highway definition. Brea Canyon Rd appears to fall into that defined by paragraph three.
http://planning.lacounty.gov/assets/upl/project/gp_final-general-plan-ch7.pdf

Salazar, Cindy

From: Lee Yates <revyoda@hotmail.com>
Sent: Tuesday, May 21, 2019 2:23 PM
To: Salazar, Cindy
Subject: Brea Canyon Road project question

Cindy,
I like the plans for Brea Canyon but have a huge fear about the timeline in relation to the Lambert / 57 exchange project.
My commute is "the good direction" going North in the morning and South early afternoon,
but I can imagine construction on both locations at the same time could compound Mall traffic at Imperial, and flood the other surface roads to a stand still as people seek ways around that are already pretty full with local traffic.
Is there a timeline that shows how these two projects are co-existing?

Thanks,
Lee Yates

910 Orangewood Drive
Brea, CA

Salazar, Cindy

From: Margot Eiser <coppmontebello@gmail.com>
Sent: Wednesday, June 19, 2019 4:32 PM
To: Salazar, Cindy
Attachments: Brea canyon NOP.doc

Cindy Salazar, Senior Planner Orange County

--
Citizens for Open and Public Participation Margot Eiser Chair

June 18, 2019

Cindy Salazar, Senior Planner Orange County

Cindy.Salazar@ocpw.ocgov.com
(OC) Development Services/Planning

300 N. Flower Street

Santa Ana, CA 92703 Cindy.Salazar@ocpw.ocgov.com

Re: Comments on NOP of a DEIR (EIR No. 628)

for the Brea Boulevard/Brea Canyon Road Widening Project (IP 17-046) SCH # 2017051

Looking fwd do your DEIR

We Notice that there are three bridges
We consider that there is a wave guide for long waves from a San Andreas event which funnels from North to South into the LA Basin
giving amplified ground motion and longer duration events
See the USGS "ShakeOUT Sceanerio and Terrashake studies at UCSD
Velocities and vertical velocities must be studied
ground motions and permanent ground displacements must be catagorized
Suggest you consult with Dr. Lucy Jones
CalTrans applet does not consider path effects
Consider Cybershake from SCEC
Latest extensions of Whitter found by CalTrans during the 710 extension studies have increased Whittier to 7.85Mw
so three major controlling faults
near field parameters, heave, fling, direction must be considered even for the buried PHT thrust fault
All three segments of the Puente Hills thrust must be considered as acting together- 7.5 is reasonable
PHT may also be connect to thrusts to the East
Periods of the structures must be correlated with the site specific ground motions
We suggest that Dynamic analysis be required (in addition to static and pseudostatic)
A geotechnical study looking for adverse bedding, clay layers must be performed
If steep bedding is found investigation perpendicular to the bedding must be made

sincerely yours

COPP

Salazar, Cindy

From: bill connelly <beconn2006@yahoo.com>
Sent: Tuesday, May 21, 2019 10:33 PM
To: Salazar, Cindy
Subject: Brea Boulevard Widening

1. Why do you make it so difficult to get access to the detailed information!!! Its easy if you get the letter on your computer, all you have to do is click on it. The rest of us get to try to use the website which requires a whole page of details to get it!!!

I will be at the meeting!

2. I live next to the last house on Brea Blvd. I am concerned that the increased traffic will be an issue with more cars and noise. I am also concerned that if the road is going to cut into the east side which currently has a walkway and a steep hill up to my back yard. Maintenance of the hill is the responsibility of the city of Brea, and there have been issues regarding maintenence of the hillside, which were taken care of. I fear problems in making a retaining wall.

3, The traffic is significant during early morning and late afternoon. After the rush, many people are running well above 55 mi. Sometimes, there are drivers trying to catch up with them. When the road has two lanes on each side, there will be significant numbers of racers. The result will be deadly, when they find that the right turn, will not allow them to stay in their own lane.

William (Bill) Connelly
Home 1227 Grand Canyon, Brea Ca 92821
Ellie's cell01-714-257-9354
Bill's cell 01-714-329-4080

Salazar, Cindy

From: Laurel L. Impett <lmpett@smwlaw.com>
Sent: Monday, June 17, 2019 12:17 PM
To: Salazar, Cindy
Cc: Claire Schlotterbeck
Subject: Brea Boulevard/Brea Canyon Road Widening Project Notice of Preparation
Attachments: Ltr to C. Salazar re 2019 Brea Canyon Road NOP.PDF

Ms. Salazar,

On behalf of Hills for Everyone, please find attached a letter on the Notice of Preparation for the Brea Boulevard/Brea Canyon Road Widening Project.

Sincerely,
Laurel Impett

Laurel L. Impett, AICP, Urban Planner
Shute, Mihaly & Weinberger LLP
396 Hayes Street
San Francisco, CA 94102
415.552.7272
lmpett@smwlaw.com

SHUTE, MIHALY & WEINBERGER LLP

396 HAYES STREET, SAN FRANCISCO, CA 94102
T: (415) 552-7272 F: (415) 552-5816
www.smwlaw.com

LAUREL L. IMPETT, AICP
Urban Planner
lmpett@smwlaw.com

June 17, 2019

Cindy Salazar, Senior Planner
Orange County Public Works
Development Services/Planning
300 N. Flower Street
Santa Ana, CA 92703
Cindy.Salazar@ocpw.ocgov.com

Re: Notice of Preparation of a Draft Environmental Impact Report In Connection with Brea Boulevard/Brea Canyon Road Widening Project (IP 17-046) SCH # 2017051005

Dear Ms. Salazar:

We represent Hills For Everyone in connection with the Brea Boulevard/Brea Canyon Road Widening Project (Project). Like all concerned members of the public, Hills For Everyone expects to rely heavily on the environmental document required by the California Environmental Quality Act (CEQA) for an honest and thorough assessment of the environmental impacts of the proposed Project. To this end, we submit the following comments on the Notice of Preparation and Initial Study (NOP) prepared for the proposed Project.

Hills For Everyone was formed more than 40 years ago with the specific mission to protect the unique, rare, and disappearing landscape in the Puente-Chino Hills. These hills lie at the juncture of Southern California's four most populous counties: Los Angeles, Orange, Riverside, and San Bernardino. The group's first goal was the creation of the Chino Hills State Park. By designing the Park along ridgeline boundaries, Hills For Everyone originated a design strategy that protected the watershed and the viewshed. From its earliest history, Hills For Everyone has opposed projects that damage the evolving Park and supported decisions, including the modification of potentially-harmful projects, that protected it. Based on the limited information provided in the NOP, the proposed Project has the potential to cause severe and irreparable damage, as its construction and operation would adversely impact wildlife and watershed resources.

I. The NOP Lacks the Necessary Information Regarding the Project and its Probable Environmental Impacts.

The purpose of a NOP is to "solicit guidance from members of the public agencies as to the scope and content of the environmental information to be included in the EIR." CEQA Guidelines §15375; *see also* CEQA Guidelines §15082. In order to effectively solicit such guidance, the NOP must provide adequate and reliable information regarding the nature of the Project and its probable environmental impacts. Unfortunately, the County's NOP fails to meet the minimum standard for adequacy in this regard. We respectfully request that the County revise and recirculate its NOP in order to provide substantive detail about the Project and its likely environmental impacts. Because the NOP provides no information about the Project's potential environmental impacts, this letter addresses just two issues that are of particular concern to Hills For Everyone: biological resources and hydrologic impacts.

A. Project-Specific Environmental Impacts

1. Biological Resources

As an initial matter, the NOP fails to describe the Project's environmental setting, and, in particular, its biological setting. The environmental setting provides "the baseline physical conditions by which a lead agency determines whether an impact is significant." CEQA Guidelines §15125(a). "Without a determination and description of the existing physical conditions on the property at the start of the environmental review process, the EIR cannot provide a meaningful assessment of the environmental impacts of the proposed project." *Save Our Peninsula Committee v. Monterey Cnty. Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 119. Although the Project's construction and operation would result in severe impacts on biological resources, the NOP provides no information about the sensitive natural communities or wildlife that occur in the Project vicinity. In order to serve as an informational document, the NOP should have provided this detail. If the EIR suffers from the same lack of detail and focus, it will be legally inadequate under CEQA.

Biologically, this area preserves a microcosm of the California Floristic Province, an identified biodiversity hot spot in North America and a genetic reserve for the continent which makes it regionally and globally significant. *See* letter from the Puente Hills Habitat Preservation Authority, June 20, 2019, incorporated by reference into this letter. As the Habitat Authority explains, public agencies have made considerable investment in acquiring lands in the Puente Hills for biological preservation and habitat restoration. It is vitally important that the EIR evaluate whether and how the proposed Project would undermine these efforts.

As the County is fully aware, the proposed Project is located at a critical chokepoint within the Puente-Chino Hills Wildlife Corridor. This corridor lies immediately adjacent to Brea Canyon Road, but this NOP, like the 2017 NOP, fails to even acknowledge the corridor's existence, let alone describe how the Project would affect wildlife movement along the corridor. The EIR's analysis of this issue will be particularly important because wildlife movement between the Puente Hills and the Chino Hills is critical for ensuring natural ecological and evolutionary processes on a landscape scale over the long term. Indeed, the linkage at Tonner Canyon, located very close to the proposed Project, clearly represents *the last viable opportunity* to maintain and enhance a critical ecological linkage between the Puente Hills and the Chino Hills.

The EIR therefore must comprehensively evaluate the Project's effects on the wildlife species that are dependent on these lands. This detailed analysis must be prepared by a qualified, independent biologist with expertise in upland and riparian habitats. The biological resources evaluation must be based on surveys and detailed field studies that are completed at appropriate times of the year for each species potentially in the area. A search of the California Natural Diversity Database (CNDDB) maintained by the California Department of Fish & Wildlife is a good starting point, but it is not sufficient to provide the level of detail necessary for the EIR.

The EIR must not overlook the Project's potential to cause indirect impacts on wildlife in the area. The Project proposes to widen Brea Canyon Road from two to four lanes, effectively doubling the roadway's capacity. It would eliminate several curves in the existing roadway. Both of these operational improvements would be undertaken with the specific intent of increasing roadway capacity and vehicular speeds. It is well known that increases in roadway capacity have the potential to cause a substantial increase in traffic volumes, especially in those instances where the increase in capacity is intended to alleviate a traffic chokepoint.[1] Increases in traffic volume and vehicular speed increase the risk of wildlife mortality.[2] Increased traffic also results in increased noise, light and glare. All of these phenomena can have devastating consequences for wildlife. The EIR must thoroughly address the indirect effects of the Project on wildlife.

[1] Generated Traffic and Induced Travel- Implications for Transport Planning, March 18, 2019, Victoria Transport Policy Institute.

[2] Effects of Roads and Traffic on Wildlife Populations and Landscape Function: Road Ecology is Moving, 2011, Ecology and Society.

2. Hydrological Resources

The NOP does not provide any information about the ecological values of Brea Creek, despite the fact that the Project proposes extensive construction in and around the creek. Given Brea Canyon Road's proximity to steep hillsides and Brea Creek, widening of the highway has the potential to be highly impactful on the creek. According to the NOP, three bridges that cross Brea Creek would need to be replaced. These bridge replacement projects would be built in phases such that interim bridges would be constructed adjacent to existing bridges, then traffic would be diverted to the new bridges while the existing bridges are demolished and replaced. The Project would require 13 culvert crossings for drainage or oil lines or both.

Moreover, it is particularly alarming that the current NOP, unlike the 2017 NOP, fails to disclose that the bridge replacement projects will require dewatering of the creek. Would the Project no longer require creek dewatering or has the 2019 NOP simply opted to omit reference to what could be a devastating effect on wildlife? Assuming that dewatering will be required, this impact must be thoroughly addressed in light of the fact that construction would occur for more than four years. The EIR must evaluate the effect on riparian habitat and wildlife from this sustained loss of water. This evaluation must necessarily begin with wetland delineations. The County will then be able identify areas where construction should be avoided altogether and produce a plan to avoid or minimize dewatering.

It is also particularly concerning that the purpose of the Project's channel improvements is to increase the volume of water that can pass through the Brea Canyon Channel to accommodate bridge improvements associated with the road widening. While this would purportedly reduce the risk of roadway flooding, increasing the volume of water within the Creek could destroy the benthic structure of the creek, which would adversely affect the fish and invertebrates adapted for the existing flow velocity. Increased volume of water can lead to all sorts of other impacts including increased bank erosion and loss of species habitat. The EIR must thoroughly address all of these potential impacts.

The EIR must also determine whether construction and operation of the Project would result in the violation of any water quality standards, result in substantial new amounts of polluted runoff, deplete groundwater supplies or interfere with groundwater recharge, or alter the existing drainage patterns in the area. This analysis is particularly important in light of the amount of construction in and around Brea Creek and the amount of wildlife in the area that depends on surface water supplies.

B. Cumulative Impacts

An EIR must discuss the cumulative impacts of a project when the incremental effects of the project are considerable when viewed in connection with the effects of other past, current, and probable future projects. CEQA Guidelines §§ 15130(a), 15065(c). Projects currently under environmental review clearly qualify as reasonably probable future projects to be considered in a cumulative impact analysis. *See San Franciscans for Reasonable Growth v. City & County of San Francisco*, 151 Cal.App.3d 61, 74 n.13 (1984). In addition, projects anticipated beyond the near future should be analyzed for their cumulative effect if they are reasonably foreseeable. *See Bozung v. Local Agency Formation Comm'n*, 13 Cal.3d 263, 284 (1975). Here, the EIR must thorough analyze the Project's cumulative environmental impacts.

II. The NOP Errs By Not Discussing Project Alternatives.

CEQA emphasizes that an EIR must analyze a range of reasonable alternatives to the project. The alternatives must feasibly attain most of the basic project objectives while avoiding or substantially lessening the project's environmental impacts. *See* Public Resources Code § 21100(b)(4); *see also* CEQA Guidelines § 15126.6(a). The CEQA Guidelines state that the selection and discussion of alternatives should foster informed decision making and informed public participation. *See* CEQA Guidelines § 15126(d)(5).

Given the potentially severe environmental impacts that would likely result from the proposed Project, it is imperative that the EIR analyze a reasonable range of alternatives. It is particularly concerning that the NOP does not even mention alternatives let alone discuss the types of alternatives that will be considered. It is now routinely recognized that widening roadways is an antiquated approach to meeting a region's transportation needs. Moreover, projects such as this simply shift the location of traffic congestion. Consequently, the County must evaluate alternatives that meet local and regional transportation needs in a manner that is sustainable and environmentally responsible. One such an alternative should, for example, include a multimodal option that combines mass transit and a bikeway.

III. Conclusion

We appreciate the opportunity to provide these comments. Given that the NOP does not provide adequate information regarding the Project's probable environmental impacts, we respectfully request that the County revise and recirculate its NOP. Alternatively, if the County intends to proceed with the preparation of the Draft EIR without republishing the NOP, please keep Hills For Everyone and this office informed

of all notices, hearings, staff reports, briefings, meetings, and other events related to the proposed project. In addition, please notify us of the release of the Draft EIR.

Very truly yours ,

SHUTE, MIHALY & WEINBERGER LLP

Laurel L. Impett, AICP, Urban Planner

cc: Claire Schlotterbeck, Hills For Everyone

1129483.4

Salazar, Cindy

From: Trang Phan <akuastarr232@yahoo.com>
Sent: Wednesday, June 19, 2019 2:05 PM
To: Salazar, Cindy
Subject: Brea Blvd / Brea Cyn Road Widening EIR Comment

Hello,

After attending the meeting at Mariposa Elementary, I think it is good progress in widening the road for a smoother commute. My only concern is the increased noise for the neighborhood as a result of the improved traffic. Please build a soundwall for the homes whose back yard faces the road and is adjacent to Brea Blvd. This should help out for noise and dust that may be increased due to the improved speed of traffic. All neighbors agree to the soundwall even though some don't want the widening of the road.

Sincerely,

Trang Phan
1083 Grand Cyn, Brea

Salazar, Cindy

From: Peggie Boss <peggieboss@att.net>
Sent: Friday, June 14, 2019 4:54 PM
To: Salazar, Cindy
Subject: Brea Blvd/Brea Canyon Road Widening Project

I am a 54 year resident of Brea. I have great concerns regarding the widening plans of Brea Canyon Road to the county line.
1. The timing of this project and the Lambert/57freeway projects will seriously affect the flow of traffic in and within the city of Brea.
2. The length of the widening of Brea Canyon Road is a short distance and not all the way to the 60 freeway. Therefore, when the road narrows down again there will be a logjam of traffic that will back up even worse than it now does.
3. At this time, with all the road destruction and construction going on for the next few years (Brea Canyon, Lambert/57fwy, State College Blvd, Central, Birch Street) I am concerned with navigation around and through our city. Also how are we to get to the 57/60 fwys during this time?
4. The pollution of our air, loss of scenic beauty, added noise and frustration of the residences of Brea is going to have a negative effect on our city.
Please reconsider this project.
Thank you,
Peggie Boss

Sent from my iPad

Salazar, Cindy

From: bennet/susan perlson <perlsons@sbcglobal.net>
Sent: Friday, May 31, 2019 4:01 PM
To: Salazar, Cindy
Subject: Brea Blvd / Brea Cyn Road Widening EIR Comment

Hi Cindy,

I attended this week's meeting and the prior mtg a year or so ago. Thanks for the follow-up email. At the mtg, I was expecting to hear more details about the work done in the past year and the modifications. I wonder if that might have changed many of the criticisms that came everyone's way!

I am in full support of the project. In the 30+years we have lived here, we have never allowed our 2 kids to ride their bikes on Brea Canyon due to lack of a bike trail and traffic speeds. We have never walked the side of the road for the same reasons. It was always a disappointment that we could not better enjoy the canyon right above us. We know of numerous accidents and injuries and death along the road. The road widening will provide greater safety for all of us.

We do not live up against Brea Cyn so do not feel the direct impacts from the work to be done. I do understand my neighbor's concern about the potential for more noise and pollution from the 4 lane road so any mitigation that can be provided such as tree plantings and/or a sound wall would be my recommendation.

Thank you.

Sincerely,
Susan Perlson

Salazar, Cindy

From: ericsj@mindspring.com
Sent: Thursday, May 30, 2019 7:45 PM
To: Salazar, Cindy
Subject: Brea Blvd / Brea Cyn Road Widening EIR Comment

Hi Cindy,

The EIR for the Brea Canyon Road Widening Project should study the following issues:

- What are the growth-inducing aspects of this project?
- What are the impacts to animal movement on the Puente-Chino Hills Wildlife Corridor?
- What are the traffic impacts of this project within the City of Brea, both with current traffic volume and expected traffic volume if proposed development surrounding the project is built?
- A Project Alternative should be a project that improves road and channel deficiencies without adding traffic lanes.

Thank you for your time,

Eric Johnson, Chair
Puente-Chino Hills Task Force of the Sierra Club
ericsj@mindspring.com
714.366.6571

Salazar, Cindy

From: ockid@netzero.net on behalf of Phil Brigandi <ockid@netzero.com>
Sent: Sunday, June 9, 2019 9:57 AM
To: Salazar, Cindy
Subject: Brea Blvd / Brea Cyn Road Widening EIR Comment

Cindy Salazar
OC Public Works
Ms. Salazar:
I understand that your agency is now preparing a Draft Environmental Impact Report for the proposed widening of Brea Blvd./Brea Canyon Road. I would like to point out one particular historical feature that I feel should be addressed in your report. On the east side of the road, a short ways north of Canyon County Road stands a monument to the Portola Expedition of 1769, the first Spanish overland expedition through California. It is significant not only for its connection to that event, but also as the oldest surviving historical landmark plaque in Orange County, erected in 1932 by the Native Daughters of the Golden West.
Given its location just off the existing road, I presume this monument falls within the lines of your proposed project and is thus threatened with destruction. Fortunately, the mitigation for this is simple -- the original column should be re-located (or if that is not practical, a matching new column built) to a safe location somewhere along that stretch of the canyon *and the original bronze plaque re-mounted*. This plaque is a unique artifact, and deserves to be treated with care.
The placing of historical plaques marks an important step in a community's appreciation of its past. This was an idea just taking hold in California in the early 1930s. In fact the Brea Canyon plaque pre-dates the California State Historical Landmark program, which over the last 85 years has placed over 1,000 plaques across the state. Unfortunately, many of the earlier, private plaques (and some of the later state ones as well) have been destroyed, or the plaque itself stolen from its base. I have done extensive research on historical plaques in Orange County and know of no earlier, original plaque still in place here.
I trust this issue will receive the proper consideration in your EIR.
Thank you.
Phil Brigandi
Historian
Author, *Visiting Orange County's Past* (published by the Orange County Historical Commission, 2014)
https://www.ochistoryland.com/shl

Salazar, Cindy

From: Ken Dog <kendog82@hotmail.com>
Sent: Tuesday, June 18, 2019 11:08 PM
To: Salazar, Cindy
Subject: Brea Blvd / Brea Cyn Road Widening EIR Comment

Hello,

After attending the meeting at Mariposa Elementary, I think it is good progress in widening the road for a smoother commute. My only concern is the increased noise for the neighborhood as a result of the improved traffic. Please build a soundwall for the homes whose back yard faces the road and is adjacent to Brea Blvd. This should help out for noise and dust that may be increased due to the improved speed of traffic. All neighbors agree to the soundwall even though some don't want the widening of the road.

Sincerely Kenny Vinh of 1083 Grand Cyn, Brea.

Sent from my iPhone

Salazar, Cindy

From: Chris Wolfs <cwolfs@att.net>
Sent: Wednesday, June 5, 2019 3:40 PM
To: Salazar, Cindy
Cc: Chris Wolfs
Subject: Brea Blvd / Brea Cyn Road Widening EIR Comment

I cannot voice strongly enough, my opposition to the Brea canyon road widening. I believe that the road needs repair and I feel it should stop with repairing the existing road. The real problem lies in the 57 freeway not being able to handle the traffic flow so many people try the canyon road thinking it will save them time. This country road should never be made into the Harbor Blvd of Brea. This canyon and surrounding hills is what makes Brea unique. Without it we become Buena Park or La Habra. Fine cities but not unique. When we lose Brea Canyon we will lose whats left of our unique identity. Please don't encourage more and more people to use this country road. Do the repairs but let us Breans keep our special place in north Orange County.Wider road equals more traffic, more accidents, faster speeds and will not alleviate the bottle neck but will just move it further north. I will vote against any member of our government that approves this horrible idea.

Thank You

Chris Wolfs
337 Blossom Pl
Brea Ca 92821
714-747-9012

Salazar, Cindy

From: Carol Whitaker <carlee45w@yahoo.com>
Sent: Thursday, May 30, 2019 7:41 PM
To: Salazar, Cindy
Subject: Brea Blvd / Brea Cyn Road Widening EIR Comment

Hi Cindy,
I travel Brea Canyon almost daily and wonder if widening one end to four lanes and have it down to two about half way through the Canyon makes sense. Two lanes back up so much at Tonner Canyon, what would it be if there were four lanes to that point? Seems like a nightmare. My second concern is the beauty and history of the Canyon. There is not much left and it seems like a shame to do away with the area.

Thank you for reading my concern,
Carol Whitaker

Sent from my iPad

Salazar, Cindy

From: bennet/susan perlson <perlsons@sbcglobal.net>
Sent: Thursday, May 30, 2019 9:32 PM
To: Salazar, Cindy
Subject: Brea Blvd / Brea Cyn Road Widening EIR Comment

Dear Ms Salazar,

I was unable to attend the public scoping meeting but did have a couple of concerns and comments. First, let me just say that my wife and I are in favor of the project, but do have concerns about increased noise and pollution. Will there be sound deadening walls or any attempts to mitigate traffic noise and pollution for homeowners? Also, will the dedicated right turn lane for Canyon Country Rd be kept? Prior to the right turn lane's existence, it was a slow and painful crawl to drive that last quarter mile or so to make a right turn. Finally, the powerpoint slides indicate that the signal at Canyon Country will be modified. What is this signal modification? Thank you.

Bennet Perlson

Salazar, Cindy

From: Brea Museum & Historical Society <info@breamuseum.org>
Sent: Saturday, June 1, 2019 10:11 AM
To: Salazar, Cindy
Subject: Brea Blvd / Brea Canyon Widening Project

Hello Ms. Salazar,

I attended the public scoping meeting at Mariposa school and wanted to submit my comments for inclusion in the reports.
First, thank you for this opportunity.

I live and work in Brea and have seen considerable change during the last 25 years. The city has certainly grown by leaps and bounds.
As a resident I am of course concerned with traffic. It has become difficult to navigate from one end of town to the other without some delay. Constant construction and an ever increasing number of cars make what used to be a five minute drive a 30 minute chore. Simply put, more people and more cars make more traffic.
While the proposed street widening project, on the surface, sounds like a viable alternative, I don't believe it is the best solution for our city. Of course I understand the scope of this project extends beyond the border of Brea and all points must be considered.
My concerns are quite simple:
1. The county is investing a lot of money into a project that is very small in scope.
2. The proposed length of the widening does not look like it will help traffic but rather move the bottle neck deeper into the canyon. Stopping short of the 57 north ramp seems counter-productive.
3. The commuters who use Brea Canyon are frequently trying to avoid traffic on the 57 freeway. Why not widen that?
4. Proposed timing seems very poorly planned as other major construction, which will also cause traffic diversions, will occur at the same time.

I did have one other concern.
The representative indicated the appropriate agencies would be notified regarding the cultural resources. To date, the Brea Museum & Historical Society has not been notified or consulted. I would like to remind your agency that we are quite interested in the status of the Portola Monument and the balustrade from the bridges. Both hold historical significance in the city's history. We would like to be advised of any plans regarding those features before action is taken. Ideally we would like to work with the cultural resources management firm should this project be executed.

Thank you again for this opportunity.
I look forward to continued communication from you on this matter.

Cordially,
Linda Shay

Linda Shay
Museum Curator

Brea Museum & Historical Society
495 S. Brea Blvd
Brea, CA. 92821
714-256-2283
www.breamuseum.org

Puente Hills Habitat Preservation Authority

Endowment Provided by the Puente Hills Landfill

May 31, 2019

Cindy Salazar, Senior Planner
Orange County (OC) Development Services/Planning
300 N. Flower Street
Santa Ana, CA 92703
Cindy.Salazar@ocpw.ocgov.com

Re: Comments on NOP of a DEIR (EIR No. 628) for the Brea Boulevard/Brea Canyon Road Widening Project (IP 17-046) SCH # 2017051005

Dear Ms. Salazar:

The Puente Hills Habitat Preservation Authority (Habitat Authority) is a joint powers authority established pursuant to California Government Code Section 6500 *et seq*. with a Board of Directors consisting of the City of Whittier, County of Los Angeles, Sanitation Districts of Los Angeles County, and the Hacienda Heights Improvement Association.

The Habitat Authority would like to comment on the above-mentioned project with a published deadline of June 19, 2019. Our Board of Directors next meets on June 20, 2019, and through communications with Nathan Wheadon, OC Strategic Communications Manager, he has confirmed that the County can accept our comments through June 24, 2019. The Habitat Authority previously submitted comments on this project in 2017 expressing the importance for safe passage of wildlife through this area.

Thank you for the time extension of our comments on the NOP. Feel free to contact me at (562) 945-9003 or agullo@habitatauthority.org for further discussion. Also, please maintain our agency on the contact list for this planning process.

Sincerely,

Andrea Gullo
Executive Director

c: Board of Directors
Citizens Technical Advisory Committee
Nathan Wheadon

OC PublicWorks

Brea Canyon Road Widening Project
Public Scoping Meeting Comment Card

Please hand in, by mail or e-mail comments to Cindy.Salazar@ocpw.ocgov.com by June 19, 2019

Name: GARY Busteed

Organization (if any):

Address: 20850 Gold Run Dr.

City, State, Zip: Diamond BAR CA. 91765

Phone (optional): 626 862 1855

Email (optional): gary.busteed@gmail.com

Comments: 1) Traffic issues moved into DB.; Also 57 freeway widening

2) Wildlife corridor in Puente Hills - consider existing local studies (Santa Monica Mountains / Caltrans) looking at road kills and wildlife exclusion / underpasses for deer, mountain lions, bobcats etc. → over

Comments (cont.):

3. Waterway improvements the hardening of the waterways in that creek has been exasperating downstream erosion.
4. Culverts - consider natural bottom options inclusive of wildlife crossings
5. Bike lane - heavy weekend commutes / recreation. is a safety concern.
6. Historical context of the bridges.
7. What are the aesthetic impacts to road widening and adding of retaining walls along this travel corridor?

Place postage here

OC Public Works
ATTN: Cindy Salazar
300 N. Flower St.
Santa Ana, CA 92703

OC PublicWorks

Brea Canyon Road Widening Project
Public Scoping Meeting Comment Card

Please hand in, by mail or e-mail comments to Cindy.Salazar@ocpw.ocgov.com by June 19, 2019

Name: Rose and Fernando Sener

Organization (if any):

Address: 1131 Grand Canyon Road.

City, State, Zip: Brea, CA 92821

Phone (optional):

Email (optional):

Comments: I live off of Brea Canyon Road, my concern is the noise level ~~that~~ I've tolerated enough noise already - 4 lanes will make it worse! Will there be a sound wall?

Comments (cont.):

Place postage here

OC Public Works
ATTN: Cindy Salazar
300 N. Flower St.
Santa Ana, CA 92703

OC PublicWorks

Brea Canyon Road Widening Project
Public Scoping Meeting Comment Card

Please hand in, by mail or e-mail comments to Cindy.Salazar@ocpw.ocgov.com by June 19, 2019

Name: Gabriel Linares

Organization (if any):

Address: 1385 Arrow wood Dr

City, State, Zip: Brea CA 92821

Phone (optional): 714-990-1676

Email (optional): jg linares_1@hotmail.com

Comments: I would like to see a protected bike lane on the N & S Bound. I would also like to see coordination of future improvements (pot holes). exclude semi trucks from Brea caynon not doing Business.

Comments (cont.):

- sight distance, light,
- Bridge widening

* add Landscape to Road to beautify Road

Place postage here

OC Public Works
ATTN: Cindy Salazar
300 N. Flower St.
Santa Ana, CA 92703

OC PublicWorks

Brea Canyon Road Widening Project
Public Scoping Meeting Comment Card

5-29-19

Please hand in, by mail or e-mail comments to Cindy.Salazar@ocpw.ocgov.com by June 19, 2019

Name: Lynne Shapiro

Organization (if any):

Address: 924 Steele Dr

City, State, Zip: BREA CA 92821

Phone (optional): 714 357 7670

Email (optional): Lynne Shapiro2014@gmail.com

Comments: (This was mentioned at the SR57-Lambert construction meeting) (1) What about Biological impact with critters encroaching into the housing developments? For the SR57/Lambert project, the developer has called in OC Vector Control to deal w/ vermin/critters. Please consider this ahead of time & either determine HUMANE relocating or eliminating animals. It was mentioned about barriers →

Comments (cont.): & animal migrations.
TOTALLY could BE a PR NIGHTMARE.

② I think you guys did a GREAT job preparing for a quasi-"hostile" group from (most?) one area of a small part of overall area. This will impact us all, some more, some less. Talk to the folks that were @ the SR57/Lambert mtg for OC Works/DOT. Lots of information change is inevitable, w/ the # of people moving to & working in area increasing, it's all you can do to keep up w/ the traffic.

Love, "meemah"

PS - want me to send you my notes?

Place postage here

OC Public Works
ATTN: Cindy Salazar
300 N. Flower St.
Santa Ana, CA 92703

OC PublicWorks

Brea Canyon Road Widening Project
Public Scoping Meeting Comment Card

Please hand in, by mail or e-mail comments to Cindy.Salazar@ocpw.ocgov.com by June 19, 2019

Name: Daniel Ciccone III

Organization (if any):

Address: 559 Evening Canyon Rd

City, State, Zip: Brea CA 92821

Phone (optional):

Email (optional): daniecciccegmail.com

Comments: Canyon has not always 55 mph! Widening Brea Blvd
if I recall, adding signals will cause increased traffic.
Traffic now is FAST and that is the only reason its unsafe.
Not any blind curves. The damage to the Olive

Comments (cont.):

another house will be
here!

Place postage here

OC Public Works
ATTN: Cindy Salazar
300 N. Flower St.
Santa Ana, CA 92703

OC PublicWorks

Brea Canyon Road Widening Project
Public Scoping Meeting Comment Card

Please hand in, by mail or e-mail comments to Cindy.Salazar@ocpw.ocgov.com by June 19, 2019

Name: JORDAN GREENBANK

Organization (if any):

Address: 105 W. FOREST PL.

City, State, Zip: BREA CA. 92821

Phone (optional): 714-529-2453

Email (optional): STOCKMBOY@AOL.COM

Comments: YOUR PROPOSAL SOUNDS LIKE CALIFORNIA'S TRAIN TO NOWHERE. SOUNDS GRAND, COST A LOT, BUT DOESN'T TERMINATE ANYWHERE USEFUL. EVEN IF EXTENDED TO DIAMOND BAR, MOST IN BREA AND/OR DIAMOND BAR DON'T WANT THE ADDITIONAL

Comments (cont.):

TRAFFIC TOOR PROPOSAL WOULD CREATE NOT TO MENTION THE CANYON IS ALREADY DESIGNATED A 24 HR TRUCK ROUTE, WHICH WE NEED TO ELIMINATE AS IS. ONLY HEARD ONE SPEAKER AT THE MEETING FOR, AND THAT WAS FOR A BIKE LANE. FIX, UPGRADE THE TWO LANE ROAD, ELIMINATE THE TRUCK ROUTE. NOT CONVINCED THERE IS NOT A DEVELOPMENT ASPECT INVOLVED. BUILD IT THEY WILL COME

THANKS

92703-500199

SANTA ANA CA 926

30 MAY 2019 PM 2 L

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MAY 31 2019

COUNTY OF ORANGE

OC Public Works
ATTN: Cindy Salazar
300 N. Flower St.
Santa Ana, CA 92703

REC'D MAY 31 2018

OC PublicWorks

Brea Canyon Road Widening Project
Public Scoping Meeting Comment Card

Please hand in, by mail or e-mail comments to Cindy.Salazar@ocpw.ocgov.com by June 19, 2019

Name: WILLIAM CONNELLY

Organization (if any):

Address: 1227 GRAND CANYON

City, State, Zip: BREA

Phone (optional): 714 329 4080

Email (optional): BECONN2006@YAHOO.COM

Comments: 1) ALONE ROAD WILL ONLY BE A STORAGE PLACE CARS UNLESS CALTRANS OPEN UP OTHER ROADS TO ACCES TO THE 60' AND/OR THE 57

Comments (cont.):

2) SUGGEST THAT YOU DO ALL OF THE WORK ~~SEE~~ AS YOU PROPOSED BUT ~~LEAVE~~ USE A 2 LANE ROAD WITH ROUGH (AND WIDE) ~~EDGES~~ SHOULDER. THIS SHOULDER CAN THEN BE PAVED ~~FOR~~ AT COMPARELY LOW COST, IN THE FUTURE.

OC Public Works
ATTN: Cindy Salazar
300 N. Flower St.
Santa Ana, CA 92703

RECD JUN 10 2019

Comments (cont.):

RETAINING WALLS = INCREASED NOISE (VS. SOIL WHICH ABSORBS NOISE)

COORDINATE WITH L.A. COUNTY + CITY OF LA HABRA TO DIAMOND BAR IN A SINGLE EFFORT.

BETTER - LEAVE AS A 2 LANE + DISCOURAGE TRAFFIC.

OC Public Works
ATTN: Cindy Salazar
300 N. Flower St.
Santa Ana, CA 92703

THE ART OF MAGIC

JUN 6 - 2018

OC PublicWorks

Brea Canyon Road Widening Project
Public Scoping Meeting Comment Card

Please hand in, by mail or e-mail comments to Cindy.Salazar@ocpw.ocgov.com by June 19, 2019

Name: _____

Organization (if any): _____

Address: _____

City, State, Zip: _____

Phone (optional): _____

Email (optional): _____

Comments: _____

_____

_____

_____

OC PublicWorks

Brea Canyon Road Widening Project
Public Scoping Meeting Comment Card

Please hand in, by mail or e-mail comments to Cindy.Salazar@ocpw.ocgov.com by June 19, 2019

Name: WILLIAM HURLEY

Organization (if any):

Address: 316 EVERGREEN RD.

City, State, Zip: BREA, CA. 92821

Phone (optional):

Email (optional): WJHNEWHOME@HOTMAIL.COM

Comments: 1) 2 LANES BOTH DIRECTIONS MUST GO ALL THE WAY TO THE 57 FREEWAY - OTHERWISE A TRAFFIC BOTTLENECK WILL OCCUR

2) I PREFER THE 2 LANE EACH WAY WITH A MERIDIAN - LANDSCAPE WITH PLANTS/ROCKS & LOW

3) PRESERVE/PROTECT THE "PORTOLA EXPEDITION" MARKER

Comments (cont.):

4) HAVE WORK DURING OFF-PEAK HOURS - LIKE 9-4pm OR OVER NIGHT.

SANTA ANA
CA 925
19 JUN '19
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OC Public Works
ATTN: Cindy Salazar
300 N. Flower St.
Santa Ana, CA 92703

APPENDIX E
AIR QUALITY AND GREENHOUSE GAS EMISSIONS TECHNICAL REPORT

AIR QUALITY AND GREENHOUSE GAS EMISSIONS TECHNICAL REPORT

BREA BOULEVARD CORRIDOR IMPROVEMENT PROJECT

Prepared for:

Orange County Public Works
601 North Ross Street
Santa Ana, CA 92701

Contact:

Austin Morgan, P.E.

Prepared by:

AECOM
999 Town & Country Road
Orange, CA 92868

September 2022

TABLE OF CONTENTS

Section **Page**

LIST OF ACRONYMS AND ABBREVIATIONS v

1 PROJECT INTRODUCTION 1

2 AIR QUALITY EXISTING CONDITIONS AND ENVIRONMENTAL SETTING 4
- 2.1 Climate, Topography, and Meteorology 4
- 2.2 Criteria Pollutants 4
- 2.3 Air Quality Standards 7
- 2.4 South Coast Air Basin Existing Air Quality 7
- 2.5 SCAB Attainment Status 10
- 2.6 Toxic Air Contaminants 12
- 2.7 Odor 13
- 2.8 Sensitive Receptors 13

3 GREENHOUSE GAS EMISSIONS AND ENVIRONMENTAL SETTING 14
- 3.1 Scientific Basis of Climate Change 14
- 3.2 GHG Inventories 15

4 AIR QUALITY REGULATORY FRAMEWORK 17
- 4.1 Federal Standards 17
- 4.2 State Standards 17
- 4.3 Regional and Local Standards 19

5 GREENHOUSE GAS REGULATORY FRAMEWORK 21
- 5.1 Federal Standards 21
- 5.2 State Standards 23
- 5.3 Regional and Local 25

6 METHODOLOGY 26
- 6.1 Construction 26
- 6.2 Operations 27

7 AIR QUALITY IMPACT ANALYSIS 28
- 7.1 Air Quality Thresholds of Significance 28
  - 7.1.1 Regional Thresholds 29
  - 7.1.2 Localized Thresholds 30

7.2 Impact Analysis 31
7.2.1 Impact AQ-1: Conflict with or obstruct implementation of the applicable air quality plan? 31
7.2.2 Impact AQ-2: Result in cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard? 32
7.2.3 Impact AQ-3: Expose sensitive receptors to substantial pollutant concentrations? 35
7.2.4 Impact AQ-4: Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? 36

8 GREENHOUSE GAS EMISSIONS IMPACT ANALYSIS 37
8.1 GHG Emissions Thresholds of Significance 37
8.2 Impact Analysis 39
8.2.1 Impact GHG-1: Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment? 39
8.2.2 Impact GHG-2: Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs? 39

9 REFERENCES 41

APPENDIX A. Construction Emission Estimates

LIST OF FIGURES

Figure		Page
1	Regional Map	2
2	Vicinity Map	3

LIST OF TABLES

Table		Page
1	National and California Ambient Air Quality Standards	8
2	Ambient Air Quality Summary	10
3	South Coast Air Basin Attainment Designations	11
4	SCAQMD Air Quality Significance Thresholds	29
5	SCAQMD Localized Significance Thresholds	30
6	Maximum Daily Unmitigated Construction-Related Emissions	33
7	Localized Construction-Related Emissions	34

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LIST OF ACRONYMS AND ABBREVIATIONS

ºF	degrees Fahrenheit
AB	Assembly Bill
AQMP	Air Quality Management Plan
ARB	California Air Resources Board
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CCAA	California Clean Air Act
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CH_4	methane
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	CO_2-equivalents
CY	cubic yards
diesel PM	diesel particulate matter
EO	Executive Order
EPA	U.S. Environmental Protection Agency
GHG	greenhouse gas
GWP	global warming potential
HFC	hydrofluorocarbons
LCFS	low carbon fuel standard
LST	local significance threshold
MATES	Multiple Air Toxics Exposure Study
MMT	million metric tons
MPAH	Master Plan of Arterial Highways
MT	metric tons
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NO	nitric oxide
NO_2	nitrogen dioxide
NO_X	oxides of nitrogen
OCTA	Orange County Transportation Authority
OEHHA	Office of Environmental Health Hazard Assessment
OPR	Office of Planning and Research
PFC	perfluorocarbons
PM	particulate matter
PM_{10}	particulate matter equal to or less than 10 micrometers in diameter
$PM_{2.5}$	particulate matter equal to or less than 2.5 micrometers in diameter
Project	Brea Boulevard Corridor Improvement Project
ROG	reactive organic gas

RPS	Renewables Portfolio Standard
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategies
SAFE	Safer Affordable Fuel Efficient
SB	Senate Bill
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
Scoping Plan	*Climate Change Scoping Plan. A Framework for Change*
SF_6	sulfur hexafluoride
SIP	State Implementation Plan
SMAQMD	Sacramento Metropolitan Air Quality Management District
SO_2	sulfur dioxide
SR	State Route
TAC	toxic air contaminant
USDOT	U.S. Department of Transportation
VMT	vehicle miles traveled
VOC	volatile organic compound

1 PROJECT INTRODUCTION

This technical study describes the potential air quality and greenhouse gas (GHG) emissions impacts associated with construction and operation of the Brea Boulevard Corridor Improvement Project (Project). The Project would widen Brea Boulevard consistent with the Orange County Transportation Authority (OCTA) Master Plan of Arterial Highways (MPAH). The Project is located within the City of Brea and unincorporated Orange County, from Central Avenue/State College Boulevard to the State Route 57 (SR-57) southbound on-ramp approximately 1,700 feet northeast of Tonner Canyon Road a total length of approximately 8,800 linear feet or 1.7 miles (the Brea Boulevard Corridor, or "corridor"); refer to Figure 1, Regional Map, and Figure 2, Vicinity Map.

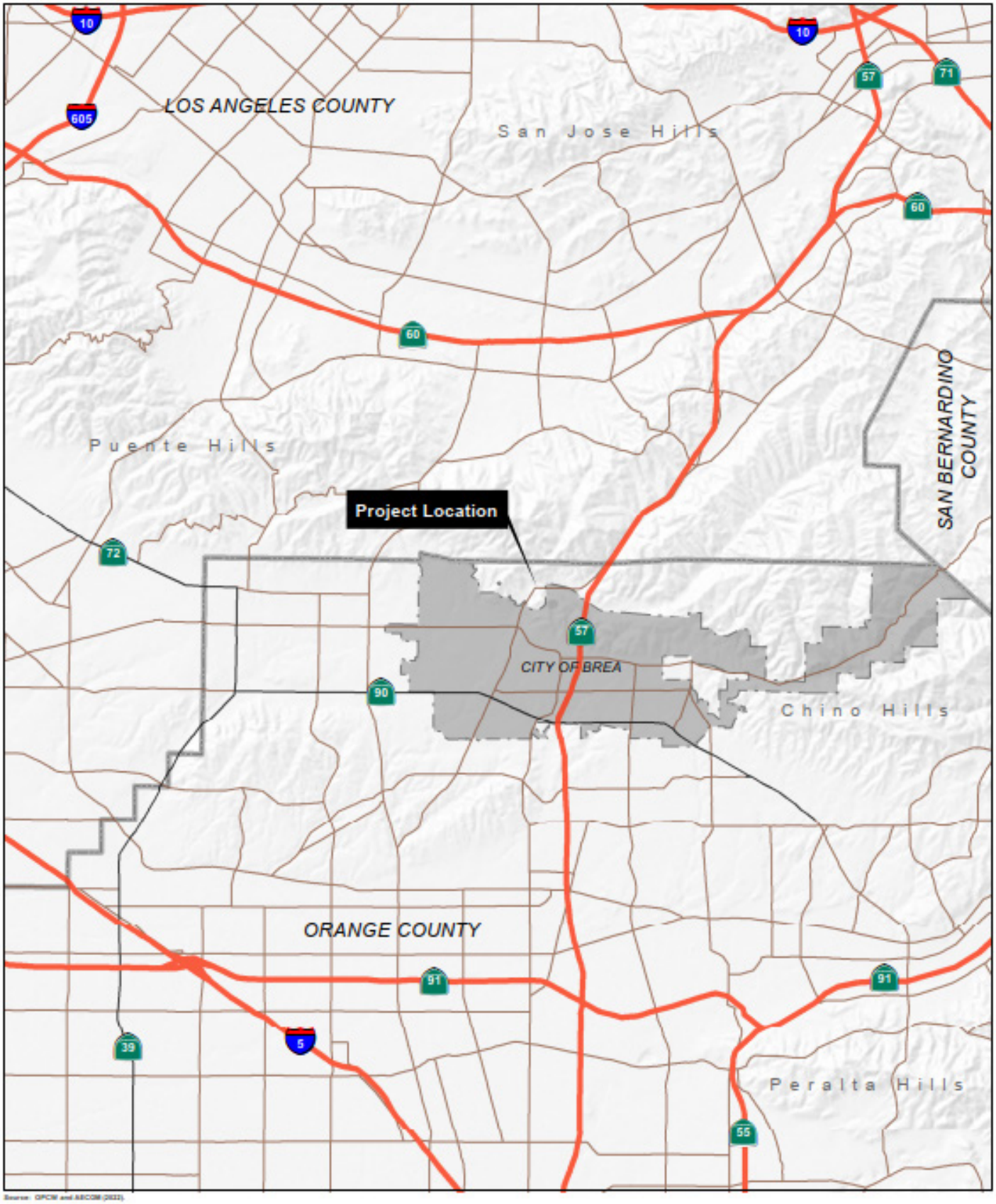
The Project involves widening Brea Boulevard from two to four lanes (two lanes each direction) between Canyondale Drive and the north end of the corridor (approximately 1.5-miles), replacing and widening three functionally obsolete bridges, installing traffic signals approximately 1,200 feet north of Canyon Country Road and at the intersection of Brea Boulevard and Tonner Canyon Road, replacing the existing signal at Canyon Country Road, modifying driveway ingress/egress, installing a new wildlife overpass/land bridge, adding open graded asphalt concrete paving at the southern end of the corridor, and providing striping and installing new signage. Construction of these improvements would be conducted within permanent and temporary limits of disturbance along the corridor (i.e., the project limits). The Project objectives include the following:

- Improve Brea Boulevard to be consistent with the designated Primary Arterial Highway classification per the MPAH;
- Replace three functionally obsolete bridges over Brea Creek with bridges that meet current design standards;
- Increase flood conveyance of Brea Creek under the three bridges;
- Enhance safe wildlife movement across the roadway within the corridor;
- Improve roadway to meet current design standards;
- Redesign the Brea Boulevard/Tonner Canyon Road and Brea Boulevard/Canyon Country Road intersections;
- Minimize impacts to the surrounding habitat and wildlife; and
- Minimize impacts to above/underground utilities.

The Project is anticipated to be divided into two phases:

- Phase I will include utility relocations, the infrastructure necessary for utility companies to relocate their utilities, wildlife overpass/land bridge, bridge replacement, retaining walls, associated temporary transition pavement, and associated grading; and
- Phase II will include the widening of the road, open graded asphalt concrete (OGAC) paving, the intersections at Canyon Country Road, 1,200 feet north of Canyon Country Road, and at Tonner Canyon Road along with other miscellaneous features.

Construction is expected to last approximately 5 years and is anticipated to begin in the year 2026.



Source: OPCW and AECOM (2022).

Scale 1 : 126720
1" = 2 miles

0 1 2 4 Miles

Figure 1
Regional Map

Eagle Aerial Imaging (2015), OCPW (2022), and AECOM (2022).

Scale 1 : 12,000
1" = 1,000 feet

0 500 1,000 2,000 3,000 Feet

Figure 2
Vicinity Map

2 AIR QUALITY EXISTING CONDITIONS AND ENVIRONMENTAL SETTING

2.1 Climate, Topography, and Meteorology

Air quality is defined by the concentration of pollutants in relation to their impact on human health. Concentrations of air pollutants are determined by the rate and location of pollutant emissions released by pollution sources, and the atmosphere's ability to transport and dilute such emissions. Natural factors that affect transport and dilution include terrain, wind, and sunlight. Therefore, ambient air quality conditions within the local air basin are influenced by such natural factors as topography, meteorology, and climate, in addition to the amount of air pollutant emissions released by existing air pollutant sources.

Climate, topography, and meteorology influence regional and local ambient air quality. Southern California is characterized as a semiarid climate, although it contains three distinct zones of rainfall that coincide with the coast, mountain, and desert. The corridor is located within the City of Brea and unincorporated Orange County, which is within the South Coast Air Basin (SCAB). The SCAB is bounded by the Pacific Ocean to the west; the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east; and the San Diego County line to the south.

The topography and climate of Southern California combine to make the SCAB an area of high air pollution potential. A warm air mass frequently descends over the cool, moist marine layer produced by the interaction between the ocean's surface and the lowest layer of the atmosphere. The warm upper layer forms a cap over the cooler surface layer, which traps the pollutants near the ground. Light winds can further limit ventilation. Additionally, abundant sunlight triggers the photochemical reactions that produce ozone and the majority of particulate matter (SCAQMD 2017a).

The normal annual precipitation in Orange County, which occurs primarily from October through April, is approximately 14 inches (NOAA 2018). Normal January temperatures range from an average minimum of 45 degrees Fahrenheit (°F) to an average maximum of 56°F, and August temperatures range from an average minimum of 65°F to an average maximum of 85°F (NOAA 2018).

2.2 Criteria Pollutants

Individual air pollutants at certain concentrations may adversely affect human or animal health, reduce visibility, damage property, and reduce the productivity or vigor of crops and natural vegetation. Six air pollutants have been identified by the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (ARB) as being of concern on both nationwide and statewide levels: ozone; carbon monoxide (CO); nitrogen dioxide (NO_2); sulfur dioxide (SO_2); lead; and particulate matter (PM). PM is subdivided into two classes based on particle size: PM equal to or less than 10 micrometers in diameter (PM_{10}) and PM equal to or less than 2.5 micrometers in diameter ($PM_{2.5}$). Because the air quality standards for these air pollutants are regulated using human health and environmentally based criteria, they are commonly referred to as "criteria air pollutants."

Ozone. Ozone is the principal component of smog and is formed in the atmosphere through a series of reactions involving reactive organic gases (ROGs) or volatile organic compounds (VOC), and nitrogen oxides (NO_X) in the presence of sunlight. ROG/VOC and NO_X are called precursors of ozone. NO_X includes various combinations of nitrogen and oxygen, including nitric oxide (NO), NO_2, and others. Significant ozone concentrations are usually produced only in the summer, when atmospheric inversions are greatest and temperatures are high. ROG/VOC and NO_X emissions are both considered critical in ozone formation.

Individuals exercising outdoors; children; and people with pre-existing lung disease, such as asthma and chronic pulmonary lung disease, are considered the most susceptible sub-groups for ozone effects. Short-term exposure (lasting for a few hours) to ozone can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. In recent years, a correlation between elevated ambient ozone levels and increases in daily hospital admission rates, as well as mortality, has also been reported. An increased risk for asthma has been found in children who participate in sports and live in communities with high ozone levels.

Carbon Monoxide. CO is a colorless and odorless gas that, in the urban environment, is associated primarily with the incomplete combustion of fossil fuels in motor vehicles. Relatively high concentrations are typically found near crowded intersections and along heavily used roadways carrying slow-moving traffic. Even under most severe meteorological and traffic conditions, high concentrations of CO are limited to locations within a relatively short distance (300 to 600 feet) of heavily traveled roadways. Vehicle traffic emissions can cause localized CO impacts, and severe vehicle congestion at major signalized intersections can generate elevated CO levels, called "hot spots," which can be hazardous to human receptors adjacent to the intersections. Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise, and electrocardiograph changes indicative of decreased oxygen supply to the heart. Inhaled CO has no direct toxic effect on the lungs but exerts its effect on tissues by interfering with oxygen transport. Hence, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. Individuals most at risk include fetuses, patients with diseases involving heart and blood vessels, and patients with chronic hypoxemia (oxygen deficiency) as seen at high altitudes.

Nitrogen Dioxide. NO_2 is a product of combustion and is generated in vehicles and in stationary sources, such as power plants and boilers. It is also formed when ozone reacts with NO in the atmosphere. As noted above, NO_2 is part of the NO_X family and is a principal contributor to ozone and smog generation. Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children, is associated with long-term exposure to NO_2 at levels found in homes with gas stoves, which are higher than ambient levels found in Southern California. Airway contraction and increased resistance to air flow are observed after short-term exposure to NO_2 in healthy subjects. Larger decreases in lung functions are observed in individuals with asthma or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups.

Sulfur Dioxide. SO_2 is a combustion product, with the primary source being power plants and heavy industries that use coal or oil as fuel. SO_2 is also a product of diesel engine combustion. SO_2 in the atmosphere contributes to the formation of acid rain. SO_2 can irritate lung tissue and increase the risk of acute and chronic respiratory disease. In asthmatics, increased resistance to air flow and a reduction in breathing capacity leading to severe breathing difficulties are observed after acute exposure to SO_2. In contrast, healthy individuals do not exhibit similar acute responses even after exposure to higher concentrations of SO_2. Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient SO_2 levels. In these studies, efforts to separate the effects of SO_2 from those of fine particles have not been successful. It is not clear whether the two pollutants act synergistically, or one pollutant alone is the predominant factor.

Lead. Lead is a highly toxic metal that may cause a range of human health effects. Previously, the lead used in gasoline anti-knock additives represented a major source of lead emissions to the atmosphere from mobile and industrial sources. EPA began working to reduce lead emissions soon after its inception, issuing the first reduction standards in 1973. In 1975, unleaded gasoline was introduced for motor vehicles equipped with catalytic converters. EPA banned the use of leaded gasoline in highway vehicles in December 1995. As a result of EPA's regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector and levels of lead in the air decreased dramatically. Fetuses, infants, and children are more sensitive than others to the adverse effects of lead exposure. Exposure to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased lead levels are associated with increased blood pressure. Lead poisoning can cause anemia, lethargy, seizures, and death, although it appears that there are no direct effects of lead on the respiratory system.

Particulate Matter. PM is a complex mixture of extremely small particles that consists of dry solid fragments, solid cores with liquid coatings, and small liquid droplets. PM is made up of a number of components, including acids (such as nitrates and sulfates), organic chemicals, metals, soot, and soil or dust particles. Natural sources of PM include windblown dust and ocean spray. The size of PM is directly linked to the potential for causing health problems. EPA is concerned about particles that are 10 micrometers in diameter or smaller, because these particles generally pass through the throat and nose and enter the lungs. Once inhaled, these particles can affect the heart and lungs and cause serious health effects. Health studies have shown a significant association between exposure to PM and premature death. Other important effects include aggravation of respiratory and cardiovascular disease, lung disease, decreased lung function, asthma attacks, and certain cardiovascular problems such as heart attacks and irregular heartbeat (EPA 2016). Individuals particularly sensitive to fine particle exposure include older adults, people with heart and lung disease, and children. A consistent correlation between elevated PM levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks, and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. In recent years, some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in life-span, and an increased mortality from lung cancer. EPA groups PM into two categories, which are described below.

PM_{10}. PM_{10} includes both fine and coarse dust particles; the fine particles are $PM_{2.5}$. Coarse particles, such as those found near roadways and dust-producing industries, are larger than 2.5 micrometers and smaller than 10 micrometers in diameter and are referred to as PM_{10}. Sources of coarse particles include crushing or grinding operations and dust from paved or unpaved roads. Control of PM_{10} is primarily achieved through the control of dust at construction and industrial sites, the cleaning of paved roads, and the wetting or paving of frequently used unpaved roads.

$PM_{2.5}$. Fine particles, such as those found in smoke and haze, are $PM_{2.5}$, and are 2.5 micrometers or smaller. Sources of fine particles include all types of combustion activities (motor vehicles, power plants, wood burning, etc.) and certain industrial processes. $PM_{2.5}$ is also formed through reactions of gases, such as SO_2 and NO_X, in the atmosphere. $PM_{2.5}$ is the major cause of reduced visibility (haze) in California.

2.3 Air Quality Standards

Health-based air quality standards have been established for these criteria pollutants by EPA at the national level and by ARB at the state level. These standards were established to protect the public with a margin of safety from adverse health impacts due to exposure to air pollution. California has also established standards for sulfates, visibility-reducing particles, hydrogen sulfide, and vinyl chloride. Table 1 presents the National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS). The most current monitoring station data and attainment designations for the project area are shown in Table 2.

2.4 South Coast Air Basin Existing Air Quality

The South Coast Air Quality Management District (SCAQMD) is responsible for enforcing the rules and regulations (i.e., CAAQS, NAAQS, and rules set by SCAQMD) protecting air quality in the SCAB. Ambient air pollutant concentrations in the SCAB are measured at air quality monitoring stations operated by ARB and the SCAQMD. The closest SCAQMD air quality monitoring station to the project area is the La Habra monitoring station, located at 621 W. Lambert, La Habra, CA, approximately 3.5 miles west of the corridor. This station monitors ozone and NO_2 concentrations. Data for PM_{10} and $PM_{2.5}$ concentrations were obtained from the Anaheim-Pampas Lane monitoring station, located at 1630 W Pampas Lane, Anaheim, CA, approximately 7.5 miles southwest of the corridor. Air quality monitoring data for CO were obtained from the SCAQMD Historical Data by Year tables for the North Orange County source receptor area. Table 2 presents three years of the most recent information available, summarizing the exceedances of standards and the highest recorded pollutant concentrations. These concentrations represent the existing, or baseline conditions, for the project area, based on the most recent information that is available.

Table 1
National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[a]	National Standards[b]	
		Concentration[c]	Primary[c,d]	Secondary[c,e]
Ozone[l]	1 hour	0.09 ppm (180 µg/m^3)	–	Same as primary standard
	8 hours	0.070 ppm (137 µg/m^3)	0.070 ppm (137 µg/m^3)	
Respirable particulate matter (PM_{10})[f]	24 hours	50 µg/m^3	150 µg/m^3	Same as primary standard
	Annual arithmetic mean	20 µg/m^3	–	
Fine particulate matter ($PM_{2.5}$)[f]	24 hours	–	35 µg/m^3	Same as primary standard
	Annual arithmetic mean	12 µg/m^3	12 µg/m^3	15 µg/m
Carbon monoxide (CO)	8 hours	9.0 ppm (10 mg/m^3)	9.0 ppm (10 mg/m^3)	None
	1 hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	
	8 hours (Lake Tahoe)	6 ppm (7 mg/m^3)	–	–
Nitrogen dioxide (NO_2)[g]	Annual arithmetic mean	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)	Same as primary standard
	1 hour	0.18 ppm (339 µg/m^3)	100 ppb (188 µg/m^3)	None
Sulfur dioxide (SO_2)[h]	Annual arithmetic mean	–	0.030 ppm (for certain areas) [h]	–
	24 hours	0.04 ppm (105 µg/m^3)	0.14 ppm (for certain areas)[h]	–
	3 hours	—	–	0.5 ppm (1,300 µg/m^3)
	1 hour	0.25 ppm (655 µg/m^3)	75 ppb (196 µg/m^3)	–
Lead[i,j]	30-day average	1.5 µg/m^3	–	–
	Calendar quarter	–	1.5 µg/m^3 (for certain areas) [j]	Same as primary standard
	Rolling 3-month average	–	0.15 µg/m^3	
Visibility-reducing particles[k]	8 hours	See footnote k	No national standards	
Sulfates	24 hours	25 µg/m^3		
Hydrogen sulfide	1 hour	0.03 ppm (42 µg/m^3)		
Vinyl chloride[i]	24 hours	0.01 ppm (26 µg/m^3)		

Notes: mg/m^3 = milligrams per cubic meter; ppb = parts per billion; ppm = parts per million; µg/m^3 = micrograms per cubic meter

[a] California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, and particulate matter (PM_{10}, $PM_{2.5}$, and visibility-reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[b] National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard. For PM_{10}, the 24-hour is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than 1. For $PM_{2.5}$, the 24-hour 1-hour standard to the California standards the units can be converted from 100 ppb to 0.100 ppm.

[h] On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. To directly compare the 1-hour national standard to the California standard, the units can be

standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standards.

[c] Concentration expressed first in the units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25 degrees Celsius and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and reference pressure of 760 torr; (ppm) in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[d] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

[e] National Secondary Standards: The levels of air quality necessary to protect public welfare from any known or anticipated adverse effects of a pollutant.

[f] On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM_{10} standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

[g] To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. California standards are in units of ppm. To directly compare the national converted to ppm. In this case, the national standard of 75 ppb is identical of 0.075 ppm.

[i] ARB has identified lead and vinyl chloride as toxic air contaminants with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[j] The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standards are approved.

[k] In 1989, ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and the "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

[l] On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

Source: ARB 2016

Table 2
Ambient Air Quality Summary

Pollutant Standards	2017	2018	2019
Ozone			
State maximum 1-hour concentration (ppm)	0.113	0.111	0.107
National maximum 8-hour concentration (ppm)	0.086	0.077	0.094
State maximum 8-hour concentration (ppm)	0.087	0.078	0.095
Number of Days Standard Exceeded			
CAAQS 1-hour (>0.09 ppm)	5	3	4
CAAQS 8- hour (>0.070 ppm)/NAAQS 8-hour (>0.070 ppm)	12/12	4/4	6/6
Carbon Monoxide (CO) [a]			
Maximum 8-hour concentration (ppm)	1.7	1.4	1.2
Maximum 1-hour concentration (ppm)	3.8	3.0	2.6
Nitrogen Dioxide (NO_2)			
State maximum 1-hour concentration (ppb)	76	67	59
Annual Average (ppb)	76.2	67.1	59.4
Number of Days Standard Exceeded			
NAAQS 1-hour	0	0	0
CAAQS 1-hour	0	0	0
Particulate Matter (PM_{10})			
National maximum 24-hour concentration ($\mu g/m^3$)	95.7	94.6	127.6
State maximum 24-hour concentration ($\mu g/m^3$)	95.7	94.6	127.1
State annual average concentration ($\mu g/m^3$)	26.9	27.7	24.4
Measured Number of Days Standard Exceeded			
NAAQS 24-hour (>150 $\mu g/m^3$)	0	0	0
CAAQS 24-hour (>50 $\mu g/m^3$)	5	2	4
Particulate Matter ($PM_{2.5}$)			
National maximum 24-hour concentration ($\mu g/m^3$)	53.9	63.1	36.1
State maximum 24-hour concentration ($\mu g/m^3$)	56.2	68.0	37.1
National annual average concentration ($\mu g/m^3$)	*	11.4	9.3
State annual average concentration ($\mu g/m^3$)	*	12.3	9.4
Measured Number of Days Standard Exceeded			
NAAQS 24-hour (>35 $\mu g/m^3$)	7	7	4

Notes: $\mu g/m^3$ = micrograms per cubic meter; CAAQS = California Ambient Air Quality Standards; NAAQS = National Ambient Air Quality Standards; ppb = parts per billion; ppm = parts per million
[a] Data obtained from the SCAQMD Historical Data by Year.
*Insufficient data to determine the value.
Source: ARB 2020a; SCAQMD 2020

As shown in Table 2, ambient air concentrations of NO_2 did not exceed the NAAQS or CAAQS in 2017 through 2019. The 1-hour and 8-hour ozone standards were exceeded in 2017 through 2019. PM_{10} and $PM_{2.5}$ concentrations exceeded the standards between 2017 and 2019.

2.5 SCAB Attainment Status

Both EPA and ARB use ambient air quality monitoring data to designate areas according to their attainment status for criteria air pollutants. The purpose of these designations is to identify the areas with air quality problems and initiate planning efforts for improvement. The three basic designation categories are

nonattainment, attainment, and unclassified. An "attainment" designation for an area signifies that pollutant concentrations did not exceed the established standard. In most cases, areas designated or redesignated as attainment must develop and implement maintenance plans, which are designed to ensure continued compliance with the standard.

In contrast to attainment, a "nonattainment" designation indicates that a pollutant concentration has exceeded the established standard. Nonattainment may differ in severity. To identify the severity of the problem and the extent of planning and actions required to meet the standard, nonattainment areas are assigned a classification that is commensurate with the severity of their air quality problem (e.g., moderate, serious, severe, extreme).

Finally, an unclassified designation indicates that insufficient data exist to determine attainment or nonattainment. In addition, the California designations include a subcategory of nonattainment-transitional, which is given to nonattainment areas that are progressing and nearing attainment.

As shown in Table 3, the SCAB currently meets the NAAQS for all criteria air pollutants except ozone and $PM_{2.5}$ and meets the CAAQS for all criteria air pollutants except ozone, PM_{10}, and $PM_{2.5}$.

Table 3
South Coast Air Basin Attainment Designations

Pollutant	State	Federal
Ozone (1-hour)	Nonattainment	Nonattainment (Extreme)[1]
Ozone (8-hour)	Nonattainment	Nonattainment (Extreme)
Carbon Monoxide	Attainment	Attainment (Maintenance)
Nitrogen Dioxide	Attainment	Attainment (Maintenance)
Sulfur Dioxide	Attainment	Unclassified/Attainment
PM_{10}	Nonattainment	Attainment (Maintenance)
$PM_{2.5}$	Nonattainment	Nonattainment (Serious)
Sulfates	Attainment	N/A
Hydrogen Sulfide	Attainment	N/A
Visibility Reducing Particles	Unclassified	N/A
Lead	Attainment	Nonattainment (Partial)[2]

Notes:
N/A = not applicable; no standard
PM_{10} = suspended particulate matter; $PM_{2.5}$ = fine particulate matter
[1] The federal ozone (1-hour) standard of 12 ppm was in effect from 1979 through June 15, 2005. The revoked standard is referenced here because this benchmark is addressed in State Implementation Plans.
[2] Partial Nonattainment designation – Los Angeles County portion of Basin only for near-source monitors. Expect redesignation to attainment based on current monitoring data.
Source: ARB 2019; SCAQMD 2016

2.6 Toxic Air Contaminants

In addition to criteria pollutants, both federal and state air quality regulations also focus on toxic air contaminants (TACs). TACs can be separated into carcinogens and noncarcinogens based on the nature of the effects associated with exposure to the pollutant. For regulatory purposes, carcinogens are assumed to have no safe threshold below which health impacts would not occur. Any exposure to a carcinogen poses some risk of contracting cancer. Noncarcinogens differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

TACs may be emitted by stationary, area, or mobile sources. Common stationary sources of TAC emissions include gasoline stations, dry cleaners, and diesel backup generators, which are subject to local air district permit requirements. The other, often more significant, sources of TAC emissions are motor vehicles on freeways, high-volume roadways, or other areas with high numbers of diesel vehicles, such as distribution centers. Off-road mobile sources are also major contributors of TAC emissions and include construction equipment, ships, and trains.

Particulate exhaust emissions from diesel-fueled engines (diesel PM) were identified as a TAC by ARB in 1998. Federal and state efforts to reduce diesel PM emissions have focused on the use of improved fuels, adding particulate filters to engines, and requiring the production of new-technology engines that emit fewer exhaust particulates.

Diesel engines tend to produce a much higher ratio of fine particulates than other types of internal combustion engines. The fine particles that make up diesel PM tend to penetrate deep into the lungs and the rough surfaces of these particles makes it easy for them to bind with other toxins within the exhaust, thus increasing the hazards of particle inhalation. Long-term exposure to diesel PM is known to lead to chronic, serious health problems, including cardiovascular disease, cardiopulmonary disease, and lung cancer.

In 2015, the SCAQMD published the Multiple Air Toxics Exposure Study IV (MATES IV), a monitoring and evaluation study conducted in the SCAB. The MATES IV consists of a monitoring program, an updated emissions inventory of TACs, and a modeling effort to characterize risk across the SCAB. The study focuses on the carcinogenic risk from exposure to air toxics. The MATES IV estimated population weighted risk in the SCAB is 897 per million, a decrease of about 57 percent compared to the previous study (MATES III). The study also showed that diesel exhaust emissions had declined by about 70 percent, but diesel PM continued to account for about two-thirds of the cancer risk from air toxics (SCAQMD 2017b). MATES IV also extrapolated excess cancer risk levels throughout the SCAB by modeling specific grids. MATES IV estimates an excess cancer risk of 915 per million for the project area (SCAQMD 2015). SCAQMD has begun the MATES V, which will include an updated emissions inventory of TACs and updated modeling effort to characterize risk across the SCAB.

2.7 Odor

Odors are considered an air quality issue both at the local level (e.g., odor from wastewater treatment) and at the regional level (e.g., smoke from wildfires). Odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

The ability to detect odors varies considerably among the population and is subjective. Some individuals have the ability to smell minute quantities of specific substances, while others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; an odor that is offensive to one person (e.g., from a fast-food restaurant or bakery) may be perfectly acceptable to another. Unfamiliar odors may be more easily detected and likely to cause complaints than familiar ones.

Offensive odors can potentially affect human health in several ways. First, odorant compounds can irritate the eyes, nose, and throat, which can reduce respiratory volume. Second, the ROGs that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system. Finally, unpleasant odors can trigger memories or attitudes linked to unpleasant odors, causing cognitive and emotional effects, such as stress.

Several examples of common land use types that generate substantial odors include wastewater treatment plants, landfills, composting/green waste facilities, recycling facilities, petroleum refineries, chemical manufacturing plants, painting/coating operations, rendering plants, and food packaging plants. The Project is not one of these common land use types that generate substantial odors and there are no wastewater treatment plants, landfills, composting facilities, refineries, or chemical plants in the immediate vicinity of the project area.

2.8 Sensitive Receptors

Some members of the population are especially sensitive to air pollutant emissions and should be given special consideration when evaluating air quality impacts from projects. The SCAQMD considers a sensitive receptor to be a receptor such as residence, hospital, or convalescent facility where it is possible that an individual could remain for 24 hours (SCAQMD 2008a).

Residential areas are considered sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to pollutants present. Recreational land uses are considered moderately sensitive to air pollution. Exercise places a high demand on respiratory functions, which can be impaired by air pollution even though exposure periods during exercise are generally short. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial and commercial areas are considered the least sensitive to air pollution because

exposure periods are relatively short and intermittent as the majority of the workers tend to stay indoors most of the time.

The nearest sensitive receptors to the project limits are residences at the southern end of the corridor along Brea Boulevard between Central Avenue/State College Boulevard north to the City/unincorporated County boundary, including single family homes and the Vintage Canyon Senior Apartments that are located directly adjacent to the project limits. Additionally, the Kindred Hospital Brea (875 N Brea Blvd, Brea, CA 92821) is also located at this southern end of the corridor, adjacent to Brea Boulevard.

3 GREENHOUSE GAS EMISSIONS AND ENVIRONMENTAL SETTING

3.1 Scientific Basis of Climate Change

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. A portion of the solar radiation that enters the earth's atmosphere is absorbed by the earth's surface, and a smaller portion of this radiation is reflected back toward space. This infrared radiation (i.e., thermal heat) is absorbed by GHGs within the earth's atmosphere. As a result, infrared radiation released from the earth that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the "greenhouse effect," is responsible for maintaining a habitable climate on the earth.

GHGs are present in the atmosphere naturally, are released by natural and anthropogenic sources, and are formed from secondary reactions taking place in the atmosphere. Natural sources of GHGs include the respiration of humans, animals, and plants; decomposition of organic matter; and evaporation from the oceans. Anthropogenic sources include the combustion of fossil fuels, waste treatment, and agricultural processes. The following are GHGs that are widely accepted as the principal contributors to human-induced global climate change:

- Carbon dioxide (CO_2)
- Methane (CH_4)
- Nitrous oxide (N_2O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur hexafluoride (SF_6)

The majority of anthropogenic CO_2 emissions are byproducts of fossil fuel combustion. CH_4 is the main component of natural gas and is associated with agricultural practices and landfills. N_2O is a colorless GHG that results from industrial processes, vehicle emissions, and agricultural practices. HFCs are synthetic chemicals used as a substitute for chlorofluorocarbons in automobile air conditioners and refrigerants. PFCs are produced as a byproduct of various industrial processes associated with aluminum production and the manufacturing of semiconductors. SF_6 is an inorganic, odorless, colorless, nontoxic, nonflammable GHG

used for insulation in electric power transmission and distribution equipment, and in semiconductor manufacturing. The primary GHGs that would be emitted during construction and operation of the Project are CO_2, CH_4, and N_2O.

Global warming potential (GWP) is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to CO_2. The GWP of a GHG is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time (i.e., lifetime) that the gas remains in the atmosphere ("atmospheric lifetime"). The reference gas for GWP is CO_2; therefore, CO_2 has a GWP of 1. The other main GHGs that have been attributed to human activity include CH_4, which has a GWP of 28, and N_2O, which has a GWP of 265 (EPA 2017a). For example, 1 ton of CH_4 has the same contribution to the greenhouse effect as approximately 28 tons of CO_2. GHGs with lower emissions rates than CO_2 may still contribute to climate change because they are more effective at absorbing outgoing infrared radiation than CO_2 (i.e., high GWP). The concept of CO_2-equivalents (CO_2e) is used to account for the different GWP potentials of GHGs to absorb infrared radiation.

Although the exact lifetime of any particular GHG molecule is dependent on multiple variables, it is understood by scientists who study atmospheric chemistry that more CO_2 is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration. GHG emissions related to human activities have been determined as "extremely likely" to be responsible (indicating 95 percent certainty) for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's atmosphere and oceans, with corresponding effects on global circulation patterns and climate (ARB 2014). The quantity of GHGs that it takes to ultimately result in climate change is not precisely known; however, no single project is expected to measurably contribute to a noticeable incremental change in the global average temperature, or to a global, local, or micro climate.

3.2 GHG Inventories

GHG emissions contributing to global climate change are attributable in large part to human activities associated with the transportation, industrial/manufacturing, electric utility, residential, commercial, and agricultural categories. Emissions of CO_2 are byproducts of fossil fuel combustion and CH_4 is the primary component in natural gas and is associated with agricultural practices and landfills. N_2O is also largely attributable to agricultural practices and soil management.

California

ARB performs an annual GHG inventory for emissions and sinks of the six major GHGs. California produced 424.1 million metric tons (MMT) CO_2e in 2017 (ARB 2019). Combustion of fossil fuel in the transportation category was the single largest source of California's GHG emissions in 2017, accounting for 41 percent of total GHG emissions in the state. The transportation category was followed by the industrial and electric power (including in-state and out-of-state sources) categories, which account for 24 and 15 percent of the state's total GHG emissions, respectively (ARB 2019).

City of Brea

The City of Brea Sustainability Plan: Leadership in Energy Efficiency was prepared in November 2012. The City of Brea produced approximately 540,908 metric tons (MT) CO_2e in 2010 (City of Brea 2012). Transportation (combustion of fuels used to power vehicles operating within City limits) is the largest emissions source, accounting for approximately 60 percent of the total emissions. Commercial and Industrial Building sources are the next largest sources of emissions accounting for approximately 24 percent of the total, collectively.

4 AIR QUALITY REGULATORY FRAMEWORK

Air quality in the SCAB is regulated by EPA, ARB, and the SCAQMD. Each of these agencies develops rules, regulations, or policies, and/or goals to attain the directives imposed through legislation. Although EPA regulation may not be superseded, both state and local regulations may be more stringent.

4.1 Federal Standards

EPA's air quality mandates are drawn primarily from the federal Clean Air Act (CAA), which was enacted in 1970 and amended in 1977 and 1990. The CAA requires EPA to establish the NAAQS and requires each state with regions that have not attained the NAAQS to prepare a State Implementation Plan (SIP), detailing how these standards are to be met in each local area. The SIP is a legal agreement between each state and the federal government to commit resources to improving air quality. It serves as the template for conducting regional and project-level air quality analysis. The SIP is not a single document, but a compilation of new and previously submitted attainment plans, emissions reduction programs, district rules, state regulations, and federal controls.

The CAA Amendments also require that states and local air quality agencies develop a Title V Operating Permit Program, which requires all "major sources" of pollutants to obtain Title V permits. The program is designed to ensure compliance with all applicable requirements of the CAA and to enhance EPA's ability to enforce the CAA. Air pollution sources subject to the program must obtain an operating permit; states must develop and implement the program; and EPA must issue permit program regulations, review each state's proposed program, and oversee the state's efforts to implement any approved program.

Before 1994, there were no standards to limit the amount of emissions from off-road equipment. In 1994, EPA established emission standards for hydrocarbons, NO_X, CO, and PM to regulate new pieces of off-road equipment. These emission standards came to be known as Tier 1. Since that time, increasingly more stringent Tier 2, Tier 3, and Tier 4 (interim and final) standards were adopted by EPA, as well as by ARB. Tier 1 emission standards became effective in 1996. The more stringent Tier 2 and Tier 3 emission standards became effective between 2001 and 2008, with the effective date dependent on engine horsepower. Tier 4 interim standards became effective between 2008 and 2012, and Tier 4 final standards became effective in 2014 and 2015. Each adopted emission standard was phased in over time. New engines built in and after 2015 across all horsepower sizes must meet Tier 4 final emission standards. In other words, new manufactured engines cannot exceed the emissions established for Tier 4 final emissions standards.

4.2 State Standards

ARB is the lead agency responsible for developing the SIP in California. Local air districts and other agencies prepare air quality attainment plans or air quality management plans, and submit them to ARB for review, approval, and incorporation into the applicable SIP.

ARB is also responsible for coordination and oversight of state and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA). The CCAA was adopted in 1988 and requires ARB to establish CAAQS. In most cases, CAAQS are more stringent than NAAQS. Other ARB responsibilities include, but are not limited to, overseeing local air district compliance with state and federal laws; approving local air quality plans; submitting SIPs to EPA; monitoring air quality; determining and updating area designations and maps; and setting emission standards for new mobile sources, consumer products, small utility engines, off-road vehicles, and fuels. ARB maintains air quality monitoring stations throughout the state in conjunction with local air districts. Data collected at these stations are used by ARB to classify air basins as being in attainment or nonattainment with respect to each pollutant and to monitor progress in attaining air quality standards.

The CCAA requires that each area exceeding the CAAQS for ozone, CO, SO_2, and NO_2 develop a plan aimed at achieving those standards. California Health and Safety Code Section 40914 requires air districts to design a plan that achieves an annual reduction in district-wide emissions of 5 percent or more, averaged every consecutive 3-year period. To satisfy this requirement, the local air districts have to develop and implement air pollution reduction measures, which are described in their air quality attainment plans, and outline strategies for achieving the CAAQS for any criteria pollutants for which the region is classified as nonattainment.

ARB has established emission standards for vehicles sold in California and for various types of equipment. California gasoline specifications are governed by both state and federal agencies. During the past decade, federal and state agencies have imposed numerous requirements on the production and sale of gasoline in California. ARB has also adopted control measures for diesel PM and more stringent emissions standards for various on-road mobile sources of emissions, including transit buses and off-road diesel equipment (e.g., tractors, generators).

TACs in California are regulated primarily through the Tanner Air Toxics Act (Chapter 1047, Statutes of 1983) and the Air Toxics Hot Spots Information and Assessment Act (Chapter 1252, Statutes of 1987). Assembly Bill (AB) 1807 sets forth a formal procedure for ARB to designate substances as TACs. Research, public participation, and scientific peer review must occur before ARB can designate a substance as a TAC. The Air Toxics Hot Spots Information and Assessment Act requires that TAC emissions from stationary sources be quantified and compiled into an inventory according to criteria and guidelines developed by ARB, and if directed to do so by the local air district, a health risk assessment must be prepared to determine the potential health impacts of such emissions.

The ARB adopted a Diesel Risk Reduction Plan, which recommends control measures to achieve a diesel PM reduction of 85 percent by 2020 from year 2000 levels. Recent regulations and programs include the low-sulfur diesel fuel requirement and more stringent emission standards for heavy-duty diesel trucks and off-road in-use diesel equipment. As emissions are reduced, it is expected that the risks associated with exposure to the emissions will also be reduced.

The ARB has also developed the *Air Quality and Land Use Handbook: A Community Health Perspective* to provide guidance on land use compatibility with sources of TACs (ARB 2005). These sources include freeways and high-traffic roads, commercial distribution centers, rail yards, refineries, dry cleaners, gasoline stations, and industrial facilities. The handbook is not a law or adopted policy, but offers advisory recommendations for the siting of sensitive receptors near uses associated with TACs. The handbook indicates that land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues. In response to new research demonstrating benefits of compact, infill development along transportation corridors, ARB released a technical supplement, *Technical Advisory: Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways* (Technical Advisory; ARB 2017a), to the 2005 Air Quality and Land Use Handbook. This Technical Advisory was developed to identify strategies that can be implemented to reduce exposure at specific developments or as recommendations for policy and planning documents. It is important to note that it is not intended as guidance for a specific project and does not discuss the feasibility of mitigation measures for the purposes of compliance with the California Environmental Quality Act (CEQA). Some of the strategies identified in the Technical Advisory include implementation of speed reduction mechanisms, including roundabouts, traffic signal management, speed limit reductions, design that promotes air flow and pollutant dispersion along street corridors, solid barriers, vegetation for pollutant dispersion, and indoor high efficiency filtration (ARB 2017b).

4.3 Regional and Local Standards

In Orange County, the SCAQMD is the agency responsible for protecting public health and welfare through the administration of federal and state air quality laws and policies. Included in the SCAQMD's tasks are monitoring of air pollution, preparation of air quality plans, and promulgation of rules and regulations.

The SCAQMD monitors air quality within the project area and the SCAB, which includes Orange County and portions of Los Angeles, Riverside, and San Bernardino Counties. The SCAB is bounded by the Pacific Ocean to the west; the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east; and the San Diego County line to the south.

Under the CCAA, the SCAQMD is required to develop an air quality attainment plan for nonattainment criteria pollutants within the air district. The most recent air quality plan developed by the SCAQMD is the 2016 Air Quality Management Plan (AQMP). The 2016 AQMP is the legally enforceable blueprint for how the region will meet and maintain compliance with the NAAQS and CAAQS. The 2016 AQMP identifies strategies and control measures needed to achieve attainment of the 8-hour ozone standard and federal annual and 24-hour standard for $PM_{2.5}$ in the SCAB (SCAQMD 2017a). The future emission forecasts are primarily based on demographic and economic growth projections provided by Southern California Association of Governments (SCAG).

SCAQMD rules that may be relevant to the Project include:

- Regulation IV: Prohibitions; Rule 401: Visible Emissions. Prohibits the generation of particulate matter emissions that exceed the visible emissions threshold.
- Regulation IV: Prohibitions; Rule 402: Nuisance. Prohibits the discharge, from any source, of such quantities of air contaminants or other materials that cause or have a tendency to cause injury, detriment, nuisance, annoyance to people and/or the public, or damage to any business or property.
- Regulation IV: Prohibitions; Rule 403: Fugitive Dust. Regulates fugitive dust emissions from any commercial construction or demolition activity capable of generating fugitive dust emissions, including active operations, open storage piles, and inactive disturbed areas, as well as track-out and carry-out onto paved roads beyond a project site.
- Regulation IV: Prohibitions; Rule 403.2: Fugitive Dust from Large Roadway Projects. Regulates fugitive dust emissions from large roadway projects including aggregate crushing and grinding operations, material piles, grading activities, and unpaved road travel.
- Regulation XI: Source Specific Standards; Rule 1113: Architectural Coatings. Requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce volatile organic compound (VOC) emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories, including traffic coatings.

The Project is required to comply with these rules, and conformance would be incorporated into Project specifications and procedures.

County of Orange General Plan

The County of Orange General Plan includes a Resources Element, which includes an Air Resources Component to improve air quality and reduce air pollutant emissions in the County. The following implementation program for the Air Resources Component is applicable to the Project (County of Orange 2012).

Implementation Program #8: **Traffic Flow Improvements**

Action: Encourage the implementation of measures which seek to reduce emissions by improving transportation system efficiency.

City of Brea General Plan

The City of Brea General Plan includes an Air Quality Element (City of Brea 2003) with a goal to improve air quality in the City. The following policy from the Air Resources Element is applicable to the Project.

Goal CR-13: **Improve air quality.**

Policy CR-13.1 Implement City-wide traffic flow improvements.

5 GREENHOUSE GAS REGULATORY FRAMEWORK

5.1 Federal Standards

EPA is the federal agency responsible for implementing the federal CAA. The Supreme Court of the United States ruled on April 2, 2007, that CO_2 is an air pollutant as defined under the CAA, and that EPA has the authority to regulate emissions of GHGs.

Greenhouse Gas Findings under the Federal Clean Air Act

On December 7, 2009, EPA signed two distinct findings regarding GHGs under Section 202(a) of the CAA:

- Endangerment Finding: The Administrator finds that the current and projected concentrations of the six key well-mixed greenhouse gases—CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6—in the atmosphere threaten the public health and welfare of current and future generations.
- Cause or Contribute Finding: The Administrator finds that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution which threatens public health and welfare.

Although these findings did not themselves impose any requirements on industries or other entities, this action was a prerequisite to finalizing EPA's *Proposed Greenhouse Gas Emission Standards for Light-Duty Vehicles* (EPA 2009). On May 7, 2010, the final *Light-Duty Vehicle Greenhouse Gas Emissions Standards and Corporate Average Fuel Economy Standards* (CAFE) were published in the Federal Register (EPA 2010). Phase 1 of the emissions standards required model year 2012 through 2016 vehicles to meet an estimated combined average emissions level of 250 grams of CO_2 per mile, which is equivalent to 35.5 miles per gallon if the automobile industry were to meet this CO_2 level solely through fuel economy improvements.

On August 28, 2012, the U.S. Department of Transportation (USDOT) and EPA issued a joint Final Rulemaking requiring additional federal GHG and fuel economy standards for Phase 2 of the emissions standards for model year 2017 through 2025 passenger cars and light-duty trucks. The standards would require these vehicles to meet an estimated combined average emissions level of 163 grams of CO_2 per mile in model year 2025, which is equivalent to 54.5 miles per gallon if the improvements were made solely through fuel efficiency. However, on April 2, 2018, EPA issued a Mid-term Evaluation Final Determination, which finds that the model year 2022 through 2025 emissions standards are not appropriate and should be revised. This Mid-term Evaluation is not a final agency action; rather, this determination led to the rule making of the Safer Affordable Fuel Efficient (SAFE) Vehicles Rule (EPA 2018), discussed below.

In addition to the standards for light-duty vehicles, USDOT and EPA adopted complementary standards to reduce GHG emissions and improve the fuel efficiency of heavy-duty trucks and buses on September 15,

2011. The Phase 1 standards together form a comprehensive heavy-duty national program for all on-road vehicles rated at a gross vehicle weight at or above 8,500 pounds for model years 2014 through 2018. The standards were phased in with increasing stringency in each model year from 2014 through 2018. The EPA standards adopted for 2018 represent an average per-vehicle reduction in GHG emissions of 17 percent for diesel vehicles and 12 percent for gasoline vehicles (EPA 2011). Building on the success of the Phase 1 standards, EPA and the National Highway Traffic Safety Administration (NHTSA) finalized Phase 2 standards for medium- and heavy-duty vehicles through model year 2027. The Phase 2 standards are expected to lower CO_2 emissions by a total of approximately 1.1 billion MT over the lifetime of the vehicles sold under the program. On November 16, 2017, EPA released a proposed rule to repeal the emission standards for heavy-duty glider vehicles, glider engines, and glider kits (EPA 2017b).

Safer Affordable Fuel Efficient Vehicles Rule

In September 2019, the NHTSA and the EPA published the SAFE Vehicles Rule Part One: One National Program. The SAFE Part One Rule revokes California's authority and vehicle waiver to set its own emissions standards and set zero emission vehicle mandates in California for passenger cars and light trucks and establish new standards, covering model years 2021 through 2026. On March 31, 2020, the EPA and NHTSA issued the second part of the proposed SAFE Vehicles Rule. This final rule became effective on June 29, 2020. The Final SAFE Rule relaxed the federal GHG emissions and fuel economy standards to increase in stringency at only about 1.5 percent per year from model year 2020 levels over model years 2021–2026. The previously established emission standards and related "augural" fuel economy standards would have achieved about 5 percent per year improvements through model year 2025 (NHTSA 2020). During the period the federal action is in effect, the ARB will administer the affected portions of its program on a voluntary basis. On January 20, 2021, President Biden signed an Executive Order directing consideration of labor unions, States, and industry views to propose suspension, revision, or rescindment of the SAFE Vehicles Rule (The White House 2021). On December 21, 2021, the NHTSA published its CAFE Preemption rule, which finalized its repeal of the 2019 SAFE Rule Part One.

On March 31, 2022, NHTSA finalized the CAFE Standards for model year 2024-2026 passenger cars and light-duty trucks. The final rule establishes standards that would require an industry-wide fleet average of approximately 49 miles per gallon for passenger cars and light trucks in model year 2026, by increasing fuel efficiency by 8 percent annually for model years 2024 and 2025, and 10 percent annually for model year 2026.

Mandatory Greenhouse Gas Reporting Rule

On September 22, 2009, EPA published the Final Mandatory Greenhouse Gas Reporting Rule (Reporting Rule) in the Federal Register. The Reporting Rule requires reporting of GHG data and other relevant information from fossil fuel and industrial GHG suppliers, vehicle and engine manufacturers, and all facilities that would emit 25,000 MT or more of CO_2e per year. Facility owners are required to submit an annual report with detailed calculations of facility GHG emissions on March 31 for emissions from the

previous calendar year. The Reporting Rule also mandates recordkeeping and administrative requirements to enable EPA to verify the annual GHG emissions reports.

5.2 State Standards

ARB is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing the CCAA.

Assembly Bill 1493

AB 1493, signed in July 2002, requires ARB to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with model year 2009. In June 2009, the EPA Administrator granted a CAA waiver of preemption to California. This waiver allowed California to implement its own GHG emissions standards for motor vehicles beginning with model year 2009. California agencies worked with federal agencies to conduct joint rulemaking to reduce GHG emissions for passenger car model years 2017 through 2025.

Executive Order S-3-05

Executive Order (EO) S-3-05, signed in June 2005, proclaimed that California is vulnerable to the impacts of climate change. EO S-3-05 declared that increased temperatures could reduce the Sierra Nevada's snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the executive order established total GHG emissions targets. Specifically, emissions were to be reduced to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below the 1990 levels by 2050. The statewide GHG emissions in 2000 were approximately 466 MMT CO_2e (ARB 2012). In 2010, overall statewide GHG emissions were approximately 453 MMT CO_2e, exceeding the 2010 goal established by EO S-3-05 (ARB 2012).

Assembly Bill 32

In 2006, California passed the California Global Warming Solutions Act of 2006 (AB 32; California Health and Safety Code, Sections 38500, et seq.). AB 32 further details and puts into law the mid-term GHG reduction target established in EO S-3-05: reduce GHG emissions to 1990 levels by 2020. AB 32 also identifies ARB as the state agency responsible for the design and implementation of emissions limits, regulations, and other measures to meet the target. AB 32 also established several programs to achieve GHG emission reductions, including the Low Carbon Fuel Standard and the Cap-and-Trade program. As of 2017, the state has reduced emissions below the revised AB 32 limit of 427 MMT CO_2e.[1]

[1] For more detail, please see https://ww2.arb.ca.gov/ghg-2020-limit and https://ww2.arb.ca.gov/ghg-inventory-graphs.

Senate Bill 32

In 2016, the California State Legislature adopted Senate Bill (SB) 32 and its companion bill AB 197, and both were signed by Governor Brown (Office of Governor Edmund G. Brown Jr., 2016). SB 32 establishes a new climate pollution reduction target of 40 percent below 1990 levels by 2030.

ARB Climate Change Scoping Plans

In December 2008, ARB adopted its *Climate Change Scoping Plan. A Framework for Change* (Scoping Plan), which contains the main strategies California will implement to achieve the GHG reductions required by AB 32 (ARB 2008). The Scoping Plan also includes ARB-recommended GHG reductions for each emissions sector of California's GHG inventory. ARB further acknowledges that decisions about how land is used will have large impacts on the GHG emissions that will result from the transportation, housing, industry, forestry, water, agriculture, electricity, and natural gas emissions sectors.

ARB is required to update the Scoping Plan at least once every 5 years to evaluate progress and develop future inventories that may guide this process. ARB approved *First Update to the Climate Change Scoping Plan: Building on the Framework* in June 2014 (ARB 2014). The 2014 Scoping Plan update includes a status of the 2008 Scoping Plan measures and other federal, state, and local efforts to reduce GHG emissions in California, and potential actions to further reduce GHG emissions by 2020.

In November 2017, ARB released the 2017 Climate Change Scoping Plan, which establishes a framework of action for California to reduce statewide emissions by 40 percent by 2030, compared to 1990 levels (ARB 2017b). The 2017 Scoping Plan builds upon the framework established by the 2008 Scoping Plan and the 2014 Scoping Plan Update, while also identifying new, technologically feasible and cost-effective strategies to ensure that California meets its GHG reduction targets.

Executive Order S-1-07

EO S-1-07, which was signed by then Governor Arnold Schwarzenegger in 2007, proclaims that the transportation sector is the main source of GHG emissions in California, at more than 40 percent of statewide emissions. EO S-1-07 establishes a goal that the carbon intensity of transportation fuels sold in California should be reduced by a minimum of 10 percent by 2020. ARB adopted the low carbon fuel standard (LCFS) on April 23, 2009. In November 2015, the Office of Administrative Law approved re-adoption of the LCFS.

Executive Order B-30-15

In April 2015, Governor Edmund Brown issued an EO establishing a statewide GHG reduction goal of 40 percent below 1990 levels by 2030. The emission reduction target acts as an interim goal between the AB 32 goal (i.e., achieve 1990 emission levels by 2020) and Governor Brown's EO S-03-05 goal of reducing

statewide emissions 80 percent below 1990 levels by 2050. In addition, the EO aligns California's 2030 GHG reduction goal with the European Union's reduction target (i.e., 40 percent below 1990 levels by 2030) that was adopted in October 2014.

Senate Bills 1078 and 109, Executive Orders S-14-08 and S-21-09, and Senate Bills 350 and 100

California's Renewables Portfolio Standard (RPS) was established in 2002 under SB 1078 and accelerated in 2006 under SB 107, by requiring that 20 percent of electricity retail sales be served by renewable energy sources by 2010. Subsequent recommendations in California energy policy reports advocated a goal of 33 percent by 2020, and on November 17, 2008, Governor Arnold Schwarzenegger signed EO S-14-08 requiring retail sellers of electricity to serve 33 percent of their load with renewable energy by 2020. EO S-21-09 directs the Air Resources Board, under its AB 32 authority, to enact regulations to help the state meet its RPS goal of 33 percent renewable energy by 2020. In April 2011, SB X1-2 codified EO S-14-08, setting the new RPS targets at 20 percent by the end of 2013, 25 percent by the end of 2016, and 33 percent by the end of 2020 for all electricity retailers. In October 2015, Governor Edmund Brown signed SB 350, which extended the RPS target by requiring retail sellers to procure 50 percent of their electricity from renewable energy resources by 2030. This was followed by SB 100 in 2018, which further increased the RPS target to 60 percent by 2030 along with the requirement that all of the state's electricity come from carbon-free resources by 2045. These requirements reduce the carbon content of electricity generation and would reduce GHG emissions associated with both existing and new development.

5.3 Regional and Local

ARB also acknowledges that local governments have broad influence and, in some cases, exclusive jurisdiction over activities that contribute to significant direct and indirect GHG emissions through their planning and permitting processes, local ordinances, outreach and education efforts, and municipal operations.

Southern California Association of Governments

On September 23, 2020, the Southern California Association of Governments (SCAG) adopted Connect SoCal, the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategies (RTP/SCS). As a plan with the goal of accelerating the region's progress toward transportation and air quality, programs within the RTP/SCS focus on shifting travel to active transportation modes, reducing traffic congestion and making travel more efficient. The sustainable themes include measures to reduce vehicles miles traveled (VMT), relieving vehicular congestion, and maximizing the safety and mobility of people and goods. Connect SoCal includes strategies aimed at reducing congestion and VMT, thereby reducing overall fuel use associated with transportation (SCAG 2020a). The Project is included in the Connect SoCal Transportation System Project List (ORA170001, SCAG 2020b).

County of Orange

On July 28, 2020, the County of Orange adopted the Zoning Code Update to incorporate sustainable policies and best management practices titled "Orange is the New Green." The Zoning Code Update helps facilitate a new standard of sustainability and flexibility that will accommodate future technological advances. The County's Zoning Code sets forth land use regulations that apply to the unincorporated areas located throughout Orange County. These regulations are intended to protect the value and enjoyment of property by separating incompatible land uses and minimizing their impact on each other (County of Orange 2019).

City of Brea

In 2012, the City of Brea completed its 2012 Sustainability Plan: Leadership in Energy Efficiency. The 2012 Sustainability Plan presents resource efficiency goals, matched with policies and implementation steps to save energy, water, and other resources, while aligning City of Brea for AB 32 compliance (City of Brea 2012).

6 METHODOLOGY

6.1 Construction

Construction-related activities are temporary, short-term sources of emissions. Sources of construction-related criteria air pollutant and GHG emissions include construction equipment exhaust; construction-related trips by workers, delivery and hauling truck trips; fugitive dust from site preparation activities; and off-gassing from traffic coating and paving activities.

Construction-related emissions were estimated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2 (CAPCOA 2017) and Sacramento Metropolitan Air Quality Management District's (SMAQMD) Road Construction Emissions Model, version 9.0[2] (SMAQMD 2018). CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for quantifying potential criteria pollutant and GHG emissions from a variety of land use projects and allows the user to enter project-specific construction information, such as the construction schedule, the types and number of construction equipment, and the number and length of off-site motor vehicle trips. The SMAQMD Roadway Construction Emissions Model was utilized to identify the specific equipment by construction subphase (e.g., site preparation, grading, bridge construction, paving) and duration of subphases. Construction of the Project is anticipated to be divided into two phases:

[2] Sacramento Metropolitan Air Quality Management District's Road Construction Emissions Model provides default data and quantification methodologies for construction emissions of linear projects and is widely accepted for estimating emissions throughout the state when site-specific information is not available.

- Phase I will include utility relocations, the infrastructure necessary for utility companies to relocate their utilities, wildlife overpass/land bridge, bridge replacement, retaining walls, associated temporary transition pavement, and associated grading; and
- Phase II will include the widening of the road, OGAC paving, the intersections at Canyon Country Road, 1,200 feet north of Canyon Country Road, and at Tonner Canyon Road along with other miscellaneous features.

Construction is expected to last approximately 5 years and is anticipated to begin in the year 2026. A construction crew of approximately 40 construction workers (daily) will be in the project area during construction. Major equipment to be used during construction will include, but not be limited to: crane, excavator, backhoes, scrapers, crane crawlers, truck cranes, hydraulic all-terrain and rough terrain cranes, loaders, concrete breaker, dump or haul trucks, pile driver/rotary drilling rig, asphalt-concrete (AC) paver, AC grinder, redi-mix truck/pumps, compactors (vibratory steel drum, padded drum, and sheepsfoot), dozers, motor grader, water tower, water truck, sweeper, concrete saw cutter, 50 lbs. hammer, handheld jackhammer, core drills, horizontal drill rig, compressors, welders, forklifts, portable lighting, and water pumps.

Construction of Phase I will begin in 2026 and is anticipated to be finished in 2030. The utility relocations during Phase I are anticipated to occur between 2026 and 2027; while the major construction activities in Phase I (i.e., bridges/walls/grading) are anticipated to occur between 2028 and 2030. Construction of Phase II is anticipated to begin in 2029 and end in 2031. Additional modeling assumptions and details are provided in Appendix A (Construction Emission Estimates).

Construction Truck Trips

It is anticipated that construction would require approximately 20,000 cubic yards (CY) of material export. Additionally, the Project would require approximately 25,830 CY of base, asphalt, concrete, and millings. The analysis assumed the haul trucks would have a capacity of 8-10 CY. The analysis also conservatively assumed that Project construction would require 3 daily general delivery truck trips. In summary, it is anticipated Project construction would require approximately 7,292 truck trips. In addition, Project construction is anticipated to generate approximately 60 tons of waste per year and it was assumed that waste haul trucks would have a 20-ton capacity, consistent with CalEEMod defaults. Additional modeling assumptions and details are provided in Appendix A.

6.2 Operations

Typical best management practices (BMPs) would be employed during the construction period and during the long-term operational phase. There would be routine cleaning of all storm drain facilities, removal of graffiti, cleaning of debris, routine pavement rehabilitation, periodic routine bridge maintenance, and similar activities. Further, as described in more detail in the Transportation Impact Analysis (AECOM 2022), the Project is strictly a transportation project, and it does not include any changes in land use for

areas adjacent to the corridor or for any other areas. There are no major development proposals or zoning changes contemplated along the corridor and traffic levels from the types of existing land uses in this area are not expected to be substantially affected by the Project. As a parallel roadway, some motorists are likely using Brea Boulevard to bypass the SR-57 under existing conditions. However, with the implementation of this Project it is expected that the Project conditions will not change substantially and the majority of these motorists, and traffic within the corridor in general, will be primarily local in nature (i.e., having starting points or destinations in the northern Brea area and general vicinity). While the Project would widen a segment of Brea Boulevard from two lanes to four lanes, this widening would only occur on a relatively short segment (approximately 1.5 miles). This corridor improvement within unincorporated Orange County does not affect throughput on Brea Boulevard further north within Brea Canyon (i.e., within Los Angeles County), where an increase in capacity could increase the regional attractiveness of the roadway as an alternative to SR-57; and it only extends as far south as Canyondale Drive, where the widened cross-section would match the existing four-lane cross-section of Brea Boulevard. With several existing/redesigned (and one new) signalized intersections concentrated at the southern end in the City of Brea, the Project would also not be expected to result in substantial travel time reduction relative to SR-57 for non-local motorists. As such, the majority of traffic along the affected segment of Brea Boulevard is expected to continue to be primarily local in nature, and the potential for substantial diversion of regional traffic from parallel arterials or highways as a result of the Project is expected to be minimal and would not be substantial. Furthermore, the VMT analysis shows that overall VMT within Orange County would decrease with the Project, and the level of service analysis shows that intersections (and segments) along Brea Boulevard would see improvements in level of service and delay, which is inclusive of modeled forecast growth (i.e., approximately 1 percent increase per year over 2019 traffic volumes). Thus, implementation of the Project improvements on Brea Boulevard is anticipated to improve traffic flow and reduce congestion. Therefore, following construction, operational emissions are anticipated to be similar or less than existing conditions and are analyzed qualitatively.

7 AIR QUALITY IMPACT ANALYSIS

7.1 Air Quality Thresholds of Significance

According to Appendix G of the 2019 CEQA Guidelines, a project may have a significant impact to air quality if implementation of the project would:

Impact AQ-1: conflict with or obstruct implementation of the applicable air quality plan,

Impact AQ-2: result in cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard,

Impact AQ-3: expose sensitive receptors to substantial pollutant concentrations, or

Impact AQ-4: result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

As stated in Appendix G of the CEQA Guidelines, the significance criteria established by the applicable air quality management board or air pollution control district may be relied on to make the impact determinations for specific program elements. The SCAQMD has established recommended thresholds of significance for regional pollutant emissions, which were used to analyze the impacts of the Project. The significance thresholds are shown in Table 4.

Table 4
SCAQMD Air Quality Significance Thresholds

Pollutant	Mass Daily Construction Emissions Thresholds (lbs/day)
NO_x[1]	100
VOC[1]	75
PM10	150
PM2.5	55
SOx	150
CO	550

Note: lbs/day = pounds per day; NOx = nitrogen oxides; VOC = volatile organic compounds; CO = carbon monoxide; PM10 = particulate matter less than 10 micrometers in diameter; PM2.5 = particulate matter less than 2.5 micrometers in diameter; SOx = sulfur oxides
Source: SCAQMD 2019.
[1] Ozone is a secondary pollutant (i.e., ozone is not directly emitted, but results from chemical reactions in atmosphere from precursor pollutants (NOx and VOC). As such, air quality impacts associated with ozone are evaluated using thresholds identified for its precursor pollutants.

7.1.1 Regional Thresholds

This analysis does not directly evaluate lead because little to no quantifiable and foreseeable emissions of lead would be generated by the Project. Lead emissions have significantly decreased due to the near elimination of leaded fuel use.

The regional thresholds of significance were designed to identify those projects that would result in significant levels of air pollution and to assist the region in attaining the applicable state and federal ambient air quality standards, which were established using health-based criteria to protect the public with a margin of safety from adverse health impacts due to exposure to air pollution. Because regional air quality standards have been established for these criteria pollutants to protect the public with a margin of safety from adverse health impacts due to exposure to air pollution, these thresholds of significance can also be used to assess Project emissions and used to evaluate the Project's impacts to regional air quality and health risks under CEQA. In addition, the SCAQMD has established localized thresholds of significance.

7.1.2 Localized Thresholds

Project-related criteria air pollutant emissions may have the potential to exceed the State and federal air quality standards in the project area and vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the SCAB. In order to assess local air quality impacts, the SCAQMD has developed Localized Significance Thresholds (LSTs) to assess Project-related emissions in the project area and vicinity. SCAQMD has also provided *Final Localized Significance Threshold Methodology* (LST Methodology)*,* July 2008, which details the methodology to analyze local air emission impacts. The LST Methodology found that the primary emissions of concern are NO_2, CO, PM_{10}, and $PM_{2.5}$.

The LST Methodology provides Look-Up Tables with different thresholds based on the location and size of a project site and distance to the nearest sensitive receptors. The Look-Up Tables provide thresholds for 1, 2, and 5-acre projects sites. The project disturbance area (including the OGAC pavement, permanent disturbance, and existing roadway areas) is approximately 20 acres; however, the 5-acre project site threshold was utilized in order to provide a conservative analysis. The 5-acre project site threshold can be used as a conservative measure because it assumes daily emissions associated with the construction activities are emitted on a 5-acre site (and therefore concentrated over a smaller area with higher air pollutant concentrations to the surrounding receptors). Thus, if emissions are less than the LSTs developed by SCAQMD for a 5-acre project, then a more detailed evaluation for a larger project site is not required.

As detailed above, the project limits are located in the City of Brea and unincorporated County of Orange, within Source Receptor Area 16, North Orange County. The nearest offsite sensitive receptors to the project limits consist of residences and the Kindred Hospital Brea, located at the southern end of the corridor, immediately adjacent from the proposed roadway improvements. According to LST Methodology, any receptor located closer than 25 meters (82 feet) shall be based on the 25-meter thresholds. Table 5 below shows the LSTs for NO_2, CO, PM_{10} and $PM_{2.5}$ for construction emissions.

Table 5
SCAQMD Localized Significance Thresholds

Pollutant	Localized Construction Emissions Thresholds (lbs/day) [1]
NO_2	221
CO	1,311
PM_{10}	11
$PM_{2.5}$	6

Note: lbs/day = pounds per day; NOx = nitrogen oxides; CO = carbon monoxide; PM10 = particulate matter less than 10 micrometers in diameter; PM2.5 = particulate matter less than 2.5 micrometers in diameter
[1] Based on a 5-acre project site threshold for Source Receptor Area 16 (North Orange County) for a 25-meter receptor distance.
Source: SCAQMD 2008a

The LSTs represent the maximum emissions from a project that would not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standards and are developed based on the ambient concentrations of that pollutant for each source receptor area. Since the LSTs consider the ambient air quality, LSTs can also be used to identify those projects that would result in significant levels of air pollution and impact sensitive receptors.

7.2 Impact Analysis

7.2.1 Impact AQ-1: Conflict with or obstruct implementation of the applicable air quality plan?

As discussed in Section 4.3, the most recent air quality plan is the 2016 AQMP prepared by the SCAQMD in partnership with ARB, EPA, and SCAG. The 2016 AQMP identifies strategies and control measures needed to achieve attainment of the 8-hour ozone standard and federal annual and 24-hour standard for $PM_{2.5}$ in the SCAB. Consistency with the AQMP is determined through evaluation of whether the Project would exceed the estimated emissions used as the basis of the AQMP.

Construction of the Project would involve the use of off-road equipment, haul trucks, and worker commute trips. Assumptions for off-road equipment emissions in air quality plans are developed based on hours of activity and equipment population reported to ARB for rule compliance. The use of construction equipment in the AQMP is estimated for the region on an annual basis, and construction-related emissions are estimated as an aggregate in the AQMP. Since Project construction is limited to short-term activities and construction activities would not involve unusual characteristics that would necessitate the use of extensive off-road equipment usage, the Project would not increase the assumptions for off-road equipment use in the AQMP. Site preparation, grading, and traffic marking activities would also comply with the applicable SCAQMD rules and regulations, including Rule 401 (Visible Emissions), Rule 402 (Nuisance), Rule 403 (Fugitive Dust), Rule 403.2 (Fugitive Dust from Large Roadway Projects), and Rule 1113 (Architectural Coatings [Traffic Coatings]) which are developed to implement AQMP control measures. In addition, the Project would result in emissions that would be below the SCAQMD regional and localized thresholds during construction (as shown below in Section 7.2.2). The thresholds were developed to assist the region in attaining the applicable state and federal ambient air quality standards; therefore, the Project would not result in an increase in the frequency or severity of existing air quality violations and would not have the potential to cause or affect a violation of the ambient air quality standards. Therefore, construction activities would not conflict with the applicable air quality plan.

The Project involves widening Brea Boulevard from two to four lanes, replacing and widening three bridges, installing traffic signals, modifying existing driveway ingress/egress, installing a new wildlife overpass/land bridge, and providing new striping and signage. Operational and maintenance activities would include routine cleaning of all storm drain facilities, removal of graffiti, cleaning of debris, routine pavement rehabilitation, periodic routine bridge maintenance, periodic maintenance of vegetation on the wildlife overpass/land bridge, and similar activities. The intensity and frequency of operational and

maintenance activities would be similar to existing conditions. Further, as described in more detail in the Transportation Impact Analysis (AECOM 2022), the Project is strictly a transportation project and it does not include any changes in land use that would generate trips associated with a new use. Regional VMT within Orange County would decrease with the Project and intersections and road segments along Brea Boulevard would see improvements in level of service and delay (inclusive of modeled forecast growth). As such, a reduction in VMT, improvement in traffic flow, and reduction in congestion is consistent with the goals of the SCAQMD AQMP, which include transportation system improvements that improve traffic flow or congestion conditions and measures to reduce VMT for the purpose of reducing motor vehicle emissions and consistent with the designated Primary Arterial Highway classification per the MPAH. Therefore, the Project would not cause an increase in population or vehicle trips beyond that considered in the 2016 AQMP. Thus, the intensity of operational emissions has been accounted for in the AQMP and would not exceed the current assumptions used to develop the AQMP. As such, the Project would not conflict with or obstruct implementation of the applicable air quality plan. **This impact would be less than significant.**

7.2.2 Impact AQ-2: Result in cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard?

Construction

Construction emissions are short term or temporary but have the potential to result in a significant impact on air quality. Construction activities for the Project would generate temporary emissions of precursors to ozone (VOC and NO_X), CO, PM_{10}, and $PM_{2.5}$. VOC, NO_X, and CO emissions are associated primarily with mobile equipment exhaust, including off-road construction equipment and on-road motor vehicles. Fugitive PM dust emissions are associated primarily with site preparation and travel on roads and vary as a function of parameters such as soil silt content, soil moisture, wind speed, acreage of disturbance area, and miles traveled by construction vehicles. Earthmoving and material handling operations are the primary sources of fugitive PM dust emissions from construction activities. Table 6 below shows the construction emissions associated with the Project compared to the SCAQMD's regional thresholds of significance.

Table 6
Maximum Daily Unmitigated Construction-Related Emissions

Description	VOC	NOx	CO	SOx	PM_{10}[3]	$PM_{2.5}$[3]
Maximum Daily Emissions(lbs/day)[1]	8.70	78.05	77.48	0.21	5.53	3.12
SCAQMD Regional Thresholds[2]	75	100	550	150	150	55
Exceed Regional Threshold?	No	No	No	No	No	No

Notes: Modeled by AECOM in 2021.
[1] The values shown are the maximum summer or winter daily emissions results from CalEEMod.
[2] SCAQMD 2019
[3] PM_{10} and $PM_{2.5}$ emissions include reductions associated with implementation of SCAQMD rules and regulations (Rule 401, 402, and 403), including watering exposed areas at least twice per day and limiting vehicle speeds on unpaved roads to 15 miles per hour. Note that Rule 403.2 (Fugitive Dust from Large Roadway Projects) was adopted in June 2022, so this modeling does not consider Rule 403.2 in the emission estimates, which would serve to further reduce PM emissions.
VOC = volatile organic compounds; NOx = nitrogen oxides; CO = carbon monoxide; PM_{10} = particulate matter less than 10 micrometers in diameter; $PM_{2.5}$ = particulate matter less than 2.5 micrometers in diameter; lbs/day = pounds per day

As shown in Table 6, construction-related emissions would not exceed the SCAQMD maximum daily thresholds of significance for any criteria pollutants. It should be noted that the analysis considers a conservative equipment usage scenario in which the equipment associated with the various subphases, as described in Section 6.1, is assumed to be simultaneously in use. It is more likely; however, that construction equipment is used intermittently and varies by construction activity and phase. Thus, the construction-related emissions associated with the Project are conservative. Consistent with SCAQMD Rule 403, the analysis assumed the Project would implement best management practices (BMPs) during construction, such as appropriate dust-abatement measures (watering exposed areas at least twice per day and limiting vehicle speeds to 15 miles per hour on unpaved roads) to comply with SCAQMD Rule 401 (Visible Emissions), Rule 402 (Nuisance), Rule 403 (Fugitive Dust). **This impact would be less than significant.**

As described previously, the SCAQMD has also established LSTs to assess a project's local air quality impacts. SCAQMD LSTs only consider the amount of on-site emissions generated by construction activities; off-site emissions, such as haul trucks and worker commutes, are not included. Table 7 presents the maximum on-site emissions associated with construction activities for comparison to the SCAQMD LSTs.

Table 7
Localized Construction-Related Emissions

Description	NOx	CO	PM_{10}[1]	$PM_{2.5}$[1]
Construction-Related Localized Emissions (lbs/day)	76.90	75.56	4.37	2.83
SCAQMD Localized Thresholds	221	1,311	11	6
Exceed Regional Threshold?	No	No	No	No

Notes: Modeled by AECOM in 2021.
[1] PM_{10} and $PM_{2.5}$ emissions include reductions associated with implementation of SCAQMD rules and regulations (Rule 401, 402, and 403), including watering exposed areas at least twice per day and limiting vehicle speeds on unpaved roads to 15 miles per hour. Note that Rule 403.2 (Fugitive Dust from Large Roadway Projects) was adopted in June 2022, so this modeling does not consider Rule 403.2 in the emission estimates, which would serve to further reduce PM emissions.
NOx = nitrogen oxides; CO = carbon monoxide; PM_{10} = particulate matter less than 10 micrometers in diameter; $PM_{2.5}$ = particulate matter less than 2.5 micrometers in diameter; lbs/day = pounds per day

As shown in Table 7, the peak daily localized construction emissions would not exceed the SCAQMD LSTs.

Since LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state AAQS, and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptors, Project construction would not generate a significant adverse localized air quality impact and **this impact would be less than significant**.

Operations

The Project involves widening Brea Boulevard from two to four lanes, replacing and widening three bridges, installing traffic signals, modifying existing driveway ingress/egress, installing a new wildlife overpass/land bridge, and providing new striping and signage. Operational and maintenance activities would include routine cleaning of all storm drain facilities, removal of graffiti, cleaning of debris, routine pavement rehabilitation, periodic routine bridge maintenance, periodic maintenance of vegetation on the wildlife overpass/land bridge, and similar activities. The intensity and frequency of operational and maintenance activities would be similar to existing conditions. Further, as described in more detail in the Transportation Impact Analysis (AECOM 2022), the Project is strictly a transportation project and it does not include any changes in land use that would Regional VMT within Orange County would decrease with the Project, which would reduce mobile source emissions in the region, and intersections and road segments along Brea Boulevard would see improvements in level of service and delay; thereby, reducing emissions from idling vehicles. Therefore, operation of the Project would not result in cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard. **This impact would be less than significant.**

7.2.3 Impact AQ-3: Expose sensitive receptors to substantial pollutant concentrations?

Some members of the population are especially sensitive to air pollutant emissions and should be given special consideration when evaluating air quality impacts from projects. Sensitive receptors for air pollution are generally considered children, elderly, athletes, and individuals with cardiovascular and chronic respiratory diseases. For the purposes of a CEQA analysis, the SCAQMD considers a sensitive receptor to be a receptor such as residence, hospital, or convalescent facility where it is possible that an individual could remain for 24 hours (SCAQMD 2008a). The nearest sensitive receptors are residences and the Kindred Hospital Brea located at the southern end of the corridor, adjacent to Brea Boulevard.

As shown in Table 6, construction-related activities would result in emissions of criteria air pollutants, but at levels that would not exceed the SCAQMD regional thresholds of significance. The regional thresholds of significance were designed to identify those projects that would result in significant levels of air pollution and to assist the region in attaining the applicable state and federal ambient air quality standards, which were established using health-based criteria to protect the public with a margin of safety from adverse health impacts due to exposure to air pollution. In addition, the LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standards and are developed based on the ambient concentrations of that pollutant for each source receptor area. As shown in Table 7, the localized emissions would also not exceed the SCAQMD LSTs. Because the thresholds were developed to assist the region in attaining the applicable CAAQS and NAAQS, which are established using health-based criteria, construction impacts related to exposing sensitive receptors to substantial pollutant concentrations would be less than significant.

Further, negative health effects associated with criteria pollutants are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, the number and character of exposed individuals [e.g., age, health history]). Moreover, ozone precursors (ROG and NO_X) are pollutants that affect air quality on a regional scale. Because of the reaction time and other factors involved in ozone formation, ozone is considered a regional pollutant that is not linearly related to emissions (i.e., ozone impacts vary depending on the location of the emissions, the location of other precursor emissions, meteorology, and seasonal impacts). Therefore, health effects (please refer to Section 2.2 for an explanation of the health effects of pollutants) related to ozone are the product of emissions generated by numerous sources throughout a region. Existing models have limited sensitivity to small changes in criteria pollutant concentrations, and as such, translating project-generated criteria pollutants to specific health effects would not produce meaningful results (SCAQMD 2015). As cited in the amicus brief filed by the SCAQMD in Sierra Club v. County of Fresno (2014) 26 Cal.App.4th 704, it "takes a large amount of additional precursor emissions to cause a modeled increase in ambient ozone levels" (SCAQMD 2015). In other words, minor increases in regional air pollution from project-generated ROG/VOC and NO_X would have nominal or negligible impacts on human health.

In addition to criteria air pollutants, EPA and ARB regulate hazardous air pollutants, also known as TACs. The greatest potential for TAC emissions during construction would be related to diesel PM emissions

associated with heavy-duty equipment operations. The Office of Environmental Health Hazard Assessment (OEHHA) developed a Guidance Manual for Preparation of Health Risk Assessments (OEHHA 2015). According to OEHHA methodology, health effects from carcinogenic TACs are usually described in terms of individual cancer risk, which is based on a 30-year lifetime exposure to TACs. Construction activities for the Project are anticipated to last approximately 5 years and consist of typical roadway improvement activities such as grading, trenching, and paving. Trenching and paving activities along the roadway would be completed in segments along the corridor. Due to the nature of these construction activities, similar to a moving assembly line, trucks and off-road equipment would move across the corridor and would not occur as a constant plume of emissions from the project area.

In addition, ARB has adopted Airborne Toxic Control Measures (ATCMs) to reduce air emissions from mobile sources (CARB 2004). ARB has adopted an ATCM that limits diesel-fueled commercial motor vehicles idling. The rule applies to motor vehicles with gross vehicular weight ratings greater than 10,000 pounds that are licensed for on-road use and restricts vehicles from idling for more than five minutes at any location with exceptions for idling that may be necessary in the operation of the vehicle. In addition, California Code of Regulations Title 13, Article 4.8, Chapter 9, Section 2449 regulates emissions from off-road diesel equipment in California. This regulation limits idling of equipment to no more than five minutes, requires equipment operators to label each piece of equipment and provide annual reports to ARB of their fleet's usage and emissions. Due to the construction phasing schedule, dispersive nature of diesel PM emissions, compliance with ARB ATCMs, construction activities would not expose sensitive receptors to substantial pollutant concentrations.

As discussed previously, the Project is strictly a transportation project and it does not include any changes in land use that would generate trips associated with a new use. Regional VMT and the associated mobile source emissions within Orange County would decrease with the Project and intersections and road segments along Brea Boulevard would see improvements in level of service and delay (inclusive of modeled forecast growth for the region). As such, implementation of the Project would not result in the generation of additional truck trips or increase the vehicle hours traveled by diesel trucks. Therefore, the Project would not result in an increase in TAC emissions beyond existing conditions and the Project would not expose sensitive receptors to substantial pollutant concentrations. **This impact would be less than significant.**

7.2.4 Impact AQ-4: Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

The occurrence and severity of odor impacts depend on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the presence of sensitive receptors. While offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress and often generating citizen complaints to local governments and regulatory agencies. Projects with the potential to frequently expose individuals to objectionable odors are deemed to have a significant impact. Typical facilities that generate odors include wastewater treatment facilities, sanitary landfills, composting facilities, petroleum refineries, chemical manufacturing plants, and food processing facilities.

Construction activities associated with the Project could result in short-term odor emissions from diesel exhaust associated with construction equipment. The Project would utilize typical construction techniques, and the odors would be typical of most construction sites and temporary in nature. Furthermore, construction activities would be conducted in stages along the 1.7-mile corridor and, therefore, diesel exhaust-emitting equipment would not be stationed at a single location for an extended period of time like would be typical of a site development project. In addition, the odorous compounds from diesel-fueled construction equipment and trucks have diffusive properties. For example, studies have shown that diesel particulate matter emissions can decrease substantially within 300 feet (ARB 2005; Zhu et al. 2002). Since the purpose of the Project is to implement improvements to Brea Boulevard, operation of the Project would not add any new odor sources. As a result, the Project would not create objectionable odors affecting a substantial number of people. **This impact would be less than significant.**

8 GREENHOUSE GAS EMISSIONS IMPACT ANALYSIS

8.1 GHG Emissions Thresholds of Significance

The geographic scope of consideration for GHG emissions is on a global scale as such emissions contribute, on a cumulative basis, to global climate change. Given the nature of environmental consequences from GHGs and global climate change, CEQA requires that lead agencies evaluate the cumulative impacts of GHGs, even relatively small additions, on a global basis. By their nature, GHG evaluations under CEQA are a cumulative study. (See *Center for Biological Diversity v. California Department of Fish and Wildlife* [2015] 62 Cal.4th 204.) According to Appendix G of the 2019 CEQA Guidelines, implementation of a project and its incremental contribution to global climate change would be considered significant if it would do either of the following:

Impact GHG-1: generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or

Impact GHG-2: conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

As stated in the CEQA Guidelines, these questions are "intended to encourage thoughtful assessment of impacts and do not necessarily represent thresholds of significance" (Title 14, Division 6, Chapter 3 Guidelines for Implementation of the CEQA, Appendix G, VII Greenhouse Gas Emissions). The CEQA Guidelines encourage but do not require lead agencies to adopt thresholds of significance (CEQA Guidelines, §15064.7). When developing these thresholds, and consistent with the December 2018 CEQA and Climate Change Advisory published by the California Office of Planning and Research (OPR 2018), the Guidelines allow lead agencies to develop their own significance threshold and/or to consider thresholds of significance adopted or recommended by other public agencies, or recommended by experts, provided that the thresholds are supported by substantial evidence. Individual lead agencies may also undertake a

case-by-case approach for the use of significance thresholds for projects consistent with available guidance and current CEQA practice (OPR 2018).

As the County of Orange has not established screening thresholds for GHG emissions, this analysis reviews the applicable significance thresholds developed by the SCAQMD. The SCAQMD has adopted a significance threshold of 10,000 MT of CO_2e per year for industrial (stationary source) projects. The GHG CEQA Significance Threshold Stakeholder Working Group also recommended options for evaluating non-industrial projects, including thresholds for residential and commercial projects. These draft thresholds include a threshold 3,000 MT CO_2e per year for residential and commercial projects (SCAQMD 2008b).

The SCAQMD recommends that construction emissions associated with a project be amortized over the life of the project (typically assumed to be 30 years). Therefore, this analysis includes a quantification of the total modeled construction-related GHG emissions. Those emissions are then amortized and evaluated over the life of the Project (assumed to be 30 years). The project type for this Project is closest to an industrial project (i.e., doesn't include residential and commercial land uses) and emissions are primarily construction-related from the use of off-road and on-road equipment. The 10,000 MT CO_2e threshold was developed in 2008 and was intended to ensure at least 90 percent of new GHG emissions would be reviewed and assessed for mitigation, thereby contributing to GHG emissions reduction goals of AB 32. However, the Project would begin construction in 2026; thus, construction-related GHG emissions should also be analyzed in the SB 32 statewide framework (which established a 2030 GHG emissions reduction target of 40 percent below 1990 levels). However, the SCAQMD has not adopted a threshold of significance consistent with SB 32 goals. To provide this additional information to put the Project-generated GHG emissions in the appropriate statewide context, this analysis presumes that a 40 percent reduction in the SCAQMD's existing threshold (resulting in 6,000 MT CO_2e) is necessary to achieve the State's 2030 GHG reduction goal (which is a 40 percent reduction below 1990 GHG emissions levels). This analysis also reviewed guidelines used by other public agencies. For example, the Sacramento Metropolitan Air Quality Management District (SMAQMD) has identified an annual threshold of 1,100 MT CO_2e for the construction phase of projects. However, the SMAQMD recognizes that, although there is no known level of emissions that determines if a single project would substantially impact overall GHG emission levels in the atmosphere, a threshold must be set to trigger a review and assessment of the need to mitigate project GHG emissions. The threshold set by the SMAQMD was developed considering the AB 32 and SB 32 reduction goals. Therefore, this analysis utilizes the 1,100 MT CO_2e threshold developed by SMAQMD for the construction phase of all project types in order to provide a conservative analysis of the Project's potential GHG impacts.

It is not the intent of this CEQA document to cause the adoption of these thresholds as mass emissions limits for this or other projects, but rather to provide this additional information to put the Project-generated GHG emissions in the appropriate statewide context.

8.2 Impact Analysis

8.2.1 Impact GHG-1: Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Heavy-duty off-road equipment, materials transport, and worker commutes during construction of the Project would result in exhaust-related GHG emissions. Total GHG emissions associated with construction of the Project would be approximately 7,008 MT CO_2e. Amortized over the 30-year life of the Project, annual construction emissions would be approximately 234 MT CO_2e per year. As such, the amortized construction-related emissions of the Project would not exceed SCAQMD's adopted significance threshold of 10,000 MT CO_2e per year, the adjusted SB 32 threshold of 6,000 MT CO_2e per year, nor the SMAQMD threshold of 1,100 MT CO_2e. It should be noted that the analysis considers a conservative equipment usage scenario in which the equipment associated with the various subphases, as described in Section 6.1, is assumed to be simultaneously in use. It is more likely; however, that construction equipment is used intermittently and varies by construction activity and phase. Thus, the construction-related emissions associated with the Project are conservative, and actual emissions are likely to be lower than these estimates and vary by construction activity and phase.

As described previously, the Project involves widening Brea Boulevard from two to four lanes, replacing and widening three bridges, installing traffic signals, modifying existing driveway ingress/egress, installing a new wildlife overpass/land bridge, and providing new striping and signage. Operational and maintenance activities would include routine cleaning of all storm drain facilities, removal of graffiti, cleaning of debris, routine pavement rehabilitation, periodic routine bridge maintenance, periodic maintenance of vegetation on the wildlife overpass/land bridge, and similar activities. The intensity and frequency of operational and maintenance activities would be similar to existing conditions. Further, as described in more detail in the Transportation Impact Analysis (AECOM 2022), the Project is strictly a transportation project and it does not include any changes in land use that would generate trips associated with a new use. Regional VMT within Orange County would decrease with the Project (approximately 0.23 percent lower with the Project), which would reduce mobile source emissions in the region, and intersections and road segments along Brea Boulevard would see improvements in level of service and delay; thereby, reducing emissions from idling vehicles. Therefore, the Project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. **This impact is less than cumulatively considerable.**

8.2.2 Impact GHG-2: Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?

As discussed in Section 5.2, State Standards, in response to AB 32 and SB 32, ARB has approved a series of Climate Change Scoping Plans and Scoping Plan updates. While the Scoping Plan updates do include measures that would indirectly address GHG emissions associated with construction and operational activities, including the phasing in of cleaner technology for diesel engine fleets (including construction equipment) and LCFS, successful implementation of these measures predominantly depends on the

development of laws and policies at the state level. As such, none of these statewide plans or policies constitutes a regulation to adopt or implement a regional or local plan for reduction or mitigation of GHG emissions. Thus, it is assumed that any requirements or policies formulated under the mandate of AB 32 and SB 32 that would be applicable to the Project, either directly or indirectly, would be implemented consistent with statewide policies and laws.

Consistent with the County of Orange General Plan, the Project would implement measures which seek to reduce emissions by improving transportation system efficiency (Implementation Program #8 of the Resources Element) of Brea Boulevard consistent with its designated classification in the MPAH. Similarly, the Project would be consistent with the goals of the SCAQMD AQMP which include transportation system improvements that reduce VMT and improve traffic flow or congestion conditions for the purpose of reducing motor vehicle emissions. Additionally, the Project would also be consistent with the GHG emission reduction strategies in the SCAG RTP/SCS. The SCAG RTP/SCS, Connect SoCal, is a plan that integrates land use and transportation planning and uses in an effort guide the region in sustainable growth. The sustainable themes include measures to reduce VMT, relieving vehicular congestion, and maximizing the safety and mobility of people and goods. Project objectives include improving the roadway and replacing three functionally obsolete bridges over Brea Creek with bridges that meet current design standards, all of which are consistent with the SCAG RTP/SCS. In addition, the Project is included in the Transportation System Project List (ORA170001) for the SCAG RTP/SCS. Thus, the Project would not conflict with AB 32 and SB 32 Scoping Plans; or any other relevant plans, policies, or regulations for the purpose of reducing GHG emissions. **Therefore, the Project's contribution to cumulatively significant impacts to global climate change would not be considerable.**

9 REFERENCES

AECOM. 2022. Transportation Impact Analysis. September.

California Air Pollution Control Officers Association (CAPCOA). 2017. *CalEEMod User's Guide*. Appendix D. Available at: http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4. Accessed October 2020.

California Air Resources Board (ARB). 2004. Airborne Toxic Control Measures. Available at: https://ww2.arb.ca.gov/resources/documents/airborne-toxic-control-measures. Accessed September 2022.

———. 2005. *Air Quality and Land Use Handbook: A Community Health Perspective*. Available at: http://www.arb.ca.gov/ch/landuse.htm. Accessed October 2020.

———.2008. Climate Change Scoping Plan. Available at: https://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf. Accessed October 2020.

———.2012. California Greenhouse Gas Emission Inventory 2000–2012. Available at: https://www.arb.ca.gov/cc/inventory/pubs/reports/ghg_inventory_00-12_report.pdf. Accessed October 2020.

———. 2014. *First Update to the Climate Change Scoping Plan: Building on the Framework*. Pursuant to AB 32, the California Global Warming Solutions Act of 2006. Available at: https://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf. Accessed October 2020.

———. 2016. Ambient Air Quality Standards. Available at: https://ww2.arb.ca.gov/sites/default/files/2020-07/aaqs2.pdf. Accessed October 2020.

———. 2017a. *Technical Advisory: Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways*. Available at: https://www.arb.ca.gov/ch/rd_technical_advisory_final.PDF. Accessed October 2020.

———. 2017b. *California's 2017 Climate Change Scoping Plan*. Available at: https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed October 2020.

———. 2019. California Greenhouse Gas Inventory for 2000–2017. Available at: https://ww2.arb.ca.gov/ghg-inventory-data. Accessed October 2020.

———. 2020a. Air Quality Data Statistics. Available at: https://arb.ca.gov/adam. Accessed October 2020.

City of Brea. 2003. General Plan. Available online: https://www.ci.brea.ca.us/DocumentCenter/View/61/General-Plan?bidId=. Accessed September 2022.

———. 2012. City of Brea Sustainability Plan: Leadership in Energy Efficiency. Available at: https://www.ca-ilg.org/sites/main/files/file-attachments/breasustainabilityplan_20130626153453848.pdf?1452036030. Accessed October 2020.

County of Orange. 2019. Orange is the New Green. Available at: https://www.ocagcomm.com/gov/pw/cd/planning/projects/orange_is_the_new_green.asp. Accessed October 2020.

———. 2012. General Plan: Resources Element. Available at: https://www.ocgov.com/civicax/filebank/blobdload.aspx?blobid=40235. Accessed October 2020.

National Oceanic and Atmospheric Administration (NOAA). 2018. Monthly Climate Normals (1981-2010) – Fullerton Municipal AP, CA. Available at: https://w2.weather.gov/climate/xmacis.php?wfo=sgx. Accessed October 2020.

National Highway Traffic Safety Administration. 2020. U.S. DOT and EPA Put Safety and American Families First with Final Rule on Fuel Economy Standards. Press Release. Available at: https://www.nhtsa.gov/press-releases/us-dot-and-epa-put-safety-and-american-families-first-final-rule-fuel-economy#:~:text=The%20final%20rule%20will%20increase,the%20proposal%20issued%20in%202018. Accessed November 2020.

Office of Environmental Health Hazard Assessment (OEHHA). 2015. *Air Toxics Hot Spots Program, Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments.* Available at: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf. Accessed October 2020.

Office of Planning and Research (OPR). 2018. CEQA and Climate Change Advisory. Available at: http://opr.ca.gov/docs/20181228-Discussion_Draft_Climate_Change_Adivsory.pdf. Accessed October 2020.

Sacramento Metropolitan Air Quality Management District (SMAQMD). 2018. Road Construction Emissions Model, version 9.0, May. Available at: http://www.airquality.org/Residents/CEQA-Land-Use-Planning/CEQA-Guidance-Tools. Accessed October 2020.

South Coast Air Quality Management District (SCAQMD). 2008a. Localized Significance Thresholds. Available at: http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf?sfvrsn=2. Accessed October 2020.

———. 2008b. Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans. Available at: http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2. Accessed October 2020.

———. 2015. Multiple Air Toxics Exposure Study IV. Available at: http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2017/2017-jul7-009.pdf?sfvrsn=7. Accessed October 2020.

———. 2016. SCAB Attainment Status. Available at http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/naaqs-caaqs-feb2016.pdf. Accessed October 2020.

———. 2017a. *2016 Air Quality Management Plan*. Available at: https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf?sfvrsn=15. Accessed October 2020.

———. 2017b. Board Meeting Funding for Multiple Air Toxics Exposure Study V. Available at: http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2017/2017-jul7-009.pdf?sfvrsn=7. Accessed October 2020.

———. 2019. South Coast AQMD Air Quality Significance Thresholds. Available at: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf. Accessed October 2020.

———. 2020. Historical Air Quality Data by Year. Available at: https://www.aqmd.gov/home/air-quality/historical-air-quality-data/historical-data-by-year. Accessed October 2020.

Southern California Association of Governments (SCAG). 2020a. Connect SoCal: 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy. Available at: https://www.connectsocal.org/Documents/Adopted/0903fConnectSoCal-Plan.pdf. Accessed November 2020.

———. 2020b. Connect SoCal: Transportation System: Project List. Available at: https://www.connectsocal.org/Documents/Adopted/0903fConnectSoCal_Project-List.pdf. Accessed November 2020.

The White House. 2021. Executive Order on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis. Available at: https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/executive-order-protecting-public-health-and-environment-and-restoring-science-to-tackle-climate-crisis/. Accessed June 2021.

U.S. Environmental Protection Agency (EPA). 2009. Proposed Rulemaking To Establish Light Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards. Available at: https://www.govinfo.gov/content/pkg/FR-2009-09-28/pdf/E9-22516.pdf. Accessed October 2020.

———. 2010. Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards. Available at: https://www.govinfo.gov/content/pkg/FR-2010-05-07/pdf/2010-8159.pdf. Accessed October 2020.

———. 2011. EPA and NHTSA Adopt First-Ever Program to Reduce Greenhouse Gas Emissions and Improve Fuel Efficiency of Medium- and Heavy Duty Vehicles. Available at: https://www.eesi.org/files/420f11031.pdf. Accessed October 2020.

———. 2016. Health and Environmental Effects of Particulate Matter. Available at: https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm. Accessed October 2020.

———. 2017a. Understanding Global Warming Potentials. Available at https://www.epa.gov/ghgemissions/understanding-global-warming-potentials. Accessed October 2020.

———. 2017b. Proposed Rule for Repeal of Emission Requirements for Glider Vehicles, Glider Engines, and Glider Kits. Available at: https://www.govinfo.gov/content/pkg/FR-2017-11-16/pdf/2017-24884.pdf. Accessed October 2020.

———. 2018. Mid-Term Evaluation of Greenhouse Gas Emission Standards for Model Year 2022–2025. Available at: https://www.govinfo.gov/content/pkg/FR-2018-04-13/pdf/2018-07364.pdf. Accessed October 2020.

Zhu, Y., W. C. Hinds, S. Kim, and S. Shen. 2002. Study of Ultrafine Particles Near a Major Highway with Heavy-duty Diesel Traffic. *Atmospheric Environment* 36:4323–4335.

APPENDIX A

CONSTRUCTION EMISSION ESTIMATES

Brea Boulevard Corridor Improvement Project

Orange County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	19.99	Acre	19.99	870,764.40	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2032
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Brea Boulevard Corridor Improvement Project - Orange County, Winter

Project Characteristics -

Land Use - Based on project acreage which includes permanent disturbance area, existing roadway, and proposed open graded asphalt concrete area.

Construction Phase - Overall construction schedule based on project specific duration. Subphase durations scaled based on CalEEMod and SMAQMD Road Construction Model. Daily worker and general delivery trips modeled as separate phase to avoid overlap.

Off-road Equipment -

Off-road Equipment - Based on project specific equipment and SMAQMD defaults in Roadway Construction Model. Off-highway truck = truck crane

Off-road Equipment - Based on project specific equipment and SMAQMD defaults in Roadway Construction Model. Off-highway truck = water truck.

Off-road Equipment - Based on project specific equipment and SMAQMD defaults in Roadway Construction Model

Off-road Equipment -

Off-road Equipment - Based on project specific equipment and SMAQMD defaults in Roadway Construction Model. Off-highway truck = water truck.

Off-road Equipment - Based on project specific equipment and SMAQMD defaults in Roadway Construction Model

Off-road Equipment - Based on project specific equipment and SMAQMD defaults in Roadway Construction Model

Off-road Equipment - Based on project specific equipment and SMAQMD defaults in Roadway Construction Model

Off-road Equipment - Based on project specific equipment and SMAQMD defaults in Roadway Construction Model.

Trips and VMT - Based on project specific quantities and trip lengths. Assumes average 40 workers daily. Roadway paving trips includes additional trips for additional milling removal for OGAC element.

Grading - Accounts for material export and base import. Concrete, asphalt, waste, and millings quantities calculated in trip screen.

Construction Off-road Equipment Mitigation - Assumes implemenation of SCAQMD fugitive dust control regulations.

Architectural Coating -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Fleet Mix -

Area Coating -

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tblConstructionPhase	NumDays	10.00	53.00
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tblOffRoadEquipment	PhaseName		2 - Roadway Grading
tblOffRoadEquipment	PhaseName		1 - Building Construction
tblOffRoadEquipment	PhaseName		Worker and General Delivery Trips
tblOffRoadEquipment	PhaseName		1 - Grading
tblOffRoadEquipment	PhaseName		1 - Paving
tblOffRoadEquipment	PhaseName		2 - Roadway Paving
tblOffRoadEquipment	PhaseName		1 - Paving
tblOffRoadEquipment	PhaseName		2 - Roadway Paving

tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	7.00
tblTripsAndVMT	HaulingTripLength	20.00	7.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	22.00
tblTripsAndVMT	HaulingTripLength	20.00	22.00
tblTripsAndVMT	HaulingTripNumber	0.00	54.00
tblTripsAndVMT	HaulingTripNumber	3,313.00	5,300.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,375.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,594.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,853.00
tblTripsAndVMT	VendorTripLength	6.90	15.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	143.00	0.00
tblTripsAndVMT	WorkerTripNumber	38.00	0.00
tblTripsAndVMT	WorkerTripNumber	73.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	80.00
tblTripsAndVMT	WorkerTripNumber	13.00	0.00

tblTripsAndVMT	WorkerTripNumber	366.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	40.00	0.00
tblTripsAndVMT	WorkerTripNumber	73.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2026	5.6385	49.5588	52.1291	0.1258	6.4945	1.8965	8.3910	0.8570	1.7865	2.6435	0.0000	12,100.3890	12,100.3890	2.7979	0.0000	12,170.3363
2027	5.6281	49.5409	52.0371	0.1256	6.4938	1.8962	8.3900	0.8569	1.7862	2.6430	0.0000	12,077.5688	12,077.5688	2.7969	0.0000	12,147.4917
2028	8.0093	71.6776	68.8265	0.1914	8.7282	2.7766	9.4531	3.8619	2.5623	4.5326	0.0000	18,507.6910	18,507.6910	5.5797	0.0000	18,647.1832
2029	8.7048	78.0546	77.3745	0.2094	4.9399	3.0504	6.9760	0.7331	2.8142	3.1532	0.0000	20,248.0297	20,248.0297	6.1476	0.0000	20,401.7187
2030	7.7921	22.6472	44.9960	0.1324	4.6745	0.7388	5.4133	0.6604	0.7384	1.3989	0.0000	13,401.9928	13,401.9928	0.5103	0.0000	13,414.7494
2031	2.6243	2.4910	4.1214	0.0134	0.9797	0.0668	1.0465	0.2617	0.0664	0.3281	0.0000	1,288.1535	1,288.1535	0.0538	0.0000	1,289.4987
Maximum	**8.7048**	**78.0546**	**77.3745**	**0.2094**	**8.7282**	**3.0504**	**9.4531**	**3.8619**	**2.8142**	**4.5326**	**0.0000**	**20,248.0297**	**20,248.0297**	**6.1476**	**0.0000**	**20,401.7187**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2026	5.6385	49.5588	52.1291	0.1258	3.4610	1.8965	5.3575	0.5295	1.7865	2.3159	0.0000	12,100.3890	12,100.3890	2.7979	0.0000	12,170.3363
2027	5.6281	49.5409	52.0371	0.1256	3.4603	1.8962	5.3565	0.5293	1.7862	2.3155	0.0000	12,077.5688	12,077.5688	2.7969	0.0000	12,147.4917
2028	8.0093	71.6776	68.8265	0.1914	4.8016	2.7766	5.5265	1.9736	2.5623	2.8505	0.0000	18,507.6910	18,507.6910	5.5797	0.0000	18,647.1832
2029	8.7048	78.0546	77.3745	0.2094	2.9070	3.0504	4.9431	0.5136	2.8142	3.1218	0.0000	20,248.0297	20,248.0297	6.1476	0.0000	20,401.7187
2030	7.7921	22.6472	44.9960	0.1324	2.6417	0.7388	3.3804	0.4409	0.7384	1.1793	0.0000	13,401.9928	13,401.9928	0.5103	0.0000	13,414.7494
2031	2.6243	2.4910	4.1214	0.0134	0.9797	0.0668	1.0465	0.2617	0.0664	0.3281	0.0000	1,288.1535	1,288.1535	0.0538	0.0000	1,289.4987
Maximum	**8.7048**	**78.0546**	**77.3745**	**0.2094**	**4.8016**	**3.0504**	**5.5265**	**1.9736**	**2.8142**	**3.1218**	**0.0000**	**20,248.0297**	**20,248.0297**	**6.1476**	**0.0000**	**20,401.7187**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**43.51**	**0.00**	**35.44**	**41.25**	**0.00**	**17.61**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3750	2.0000e-005	2.0300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3700e-003	4.3700e-003	1.0000e-005		4.6600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.3750**	**2.0000e-005**	**2.0300e-003**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**1.0000e-005**		**4.3700e-003**	**4.3700e-003**	**1.0000e-005**	**0.0000**	**4.6600e-003**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3750	2.0000e-005	2.0300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3700e-003	4.3700e-003	1.0000e-005		4.6600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.3750**	**2.0000e-005**	**2.0300e-003**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**1.0000e-005**		**4.3700e-003**	**4.3700e-003**	**1.0000e-005**	**0.0000**	**4.6600e-003**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Phase 1 Minor Const. Utility Relocations	Site Preparation	6/1/2026	5/31/2028	5	523	
2	Worker and General Delivery Trips	Site Preparation	6/1/2026	5/30/2031	5	1305	
3	1 - Grading	Grading	6/1/2028	8/14/2028	5	53	
4	1 - Building Construction	Building Construction	8/15/2028	7/12/2029	5	238	
5	2 - Roadway Site Prep	Site Preparation	6/1/2029	8/14/2029	5	53	
6	1 - Paving	Paving	7/13/2029	12/20/2029	5	115	
7	2 - Roadway Grading	Grading	8/15/2029	7/12/2030	5	238	
8	1 - Architectural Coating	Architectural Coating	12/21/2029	5/30/2030	5	115	
9	2 - Roadway Paving	Paving	7/13/2030	12/20/2030	5	115	
10	2 - Roadway Arch Coating	Architectural Coating	12/21/2030	5/30/2031	5	115	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 19.99

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 52,246 (Architectural Coating – sqft)

OffRoad Equipment

Brea Boulevard Corridor Improvement Project - Orange County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Phase 1 Minor Const. Utility Relocations	Air Compressors	1	8.00	78	0.48
Phase 1 Minor Const. Utility Relocations	Concrete/Industrial Saws	1	8.00	81	0.73
Phase 1 Minor Const. Utility Relocations	Crushing/Proc. Equipment	1	8.00	85	0.78
Phase 1 Minor Const. Utility Relocations	Generator Sets	1	8.00	84	0.74
Phase 1 Minor Const. Utility Relocations	Graders	2	8.00	187	0.41
Phase 1 Minor Const. Utility Relocations	Plate Compactors	1	8.00	8	0.43
Phase 1 Minor Const. Utility Relocations	Pumps	1	8.00	84	0.74
Phase 1 Minor Const. Utility Relocations	Rough Terrain Forklifts	1	8.00	100	0.40
Phase 1 Minor Const. Utility Relocations	Rubber Tired Dozers	0	0.00	247	0.40
Phase 1 Minor Const. Utility Relocations	Scrapers	4	8.00	367	0.48
Phase 1 Minor Const. Utility Relocations	Signal Boards	0	0.00	6	0.82
Phase 1 Minor Const. Utility Relocations	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Phase 1 Minor Const. Utility Relocations	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Worker and General Delivery Trips	Rubber Tired Dozers	0	0.00	247	0.40
Worker and General Delivery Trips	Signal Boards	3	8.00	6	0.82
Worker and General Delivery Trips	Tractors/Loaders/Backhoes	0	0.00	97	0.37
2 - Roadway Site Prep	Crawler Tractors	1	8.00	212	0.43
2 - Roadway Site Prep	Excavators	2	8.00	158	0.38
2 - Roadway Site Prep	Rubber Tired Dozers	0	0.00	247	0.40
2 - Roadway Site Prep	Tractors/Loaders/Backhoes	0	0.00	97	0.37
1 - Grading	Crawler Tractors	1	8.00	212	0.43
1 - Grading	Excavators	2	8.00	158	0.38
1 - Grading	Graders	0	0.00	187	0.41

1 - Grading	Off-Highway Trucks	1	8.00	402	0.38
1 - Grading	Rubber Tired Dozers	1	8.00	247	0.40
1 - Grading	Signal Boards	0	0.00	6	0.82
1 - Grading	Tractors/Loaders/Backhoes	0	0.00	97	0.37
2 - Roadway Grading	Crawler Tractors	1	8.00	212	0.43
2 - Roadway Grading	Excavators	3	8.00	158	0.38
2 - Roadway Grading	Graders	2	8.00	187	0.41
2 - Roadway Grading	Off-Highway Trucks	1	8.00	402	0.38
2 - Roadway Grading	Rollers	2	8.00	80	0.38
2 - Roadway Grading	Rubber Tired Dozers	0	8.00	247	0.40
2 - Roadway Grading	Rubber Tired Loaders	1	8.00	203	0.36
2 - Roadway Grading	Scrapers	2	8.00	367	0.48
2 - Roadway Grading	Tractors/Loaders/Backhoes	4	8.00	97	0.37
1 - Building Construction	Bore/Drill Rigs	1	8.00	221	0.50
1 - Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
1 - Building Construction	Cranes	2	7.00	231	0.29
1 - Building Construction	Crawler Tractors	2	8.00	212	0.43
1 - Building Construction	Excavators	4	8.00	158	0.38
1 - Building Construction	Forklifts	0	0.00	89	0.20
1 - Building Construction	Generator Sets	0	0.00	84	0.74
1 - Building Construction	Graders	2	8.00	187	0.41
1 - Building Construction	Off-Highway Trucks	1	8.00	402	0.38
1 - Building Construction	Rollers	3	8.00	80	0.38
1 - Building Construction	Rubber Tired Loaders	3	8.00	203	0.36
1 - Building Construction	Scrapers	4	8.00	367	0.48
1 - Building Construction	Tractors/Loaders/Backhoes	2	7.00	97	0.37
1 - Building Construction	Welders	1	8.00	46	0.45

1 - Paving	Pavers	1	8.00	130	0.42
1 - Paving	Paving Equipment	1	8.00	132	0.36
1 - Paving	Rollers	1	8.00	80	0.38
1 - Paving	Sweepers/Scrubbers	1	8.00	64	0.46
1 - Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
2 - Roadway Paving	Pavers	1	8.00	130	0.42
2 - Roadway Paving	Paving Equipment	1	8.00	132	0.36
2 - Roadway Paving	Rollers	2	8.00	80	0.38
2 - Roadway Paving	Sweepers/Scrubbers	1	8.00	64	0.46
2 - Roadway Paving	Tractors/Loaders/Backhoes	3	8.00	97	0.37
1 - Architectural Coating	Air Compressors	1	6.00	78	0.48
2 - Roadway Arch Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Phase 1 Minor Const. Utility Relocations	15	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Worker and General Delivery Trips	3	80.00	6.00	54.00	14.70	15.00	7.00	LD_Mix	HDT_Mix	HHDT
2 - Roadway Site Prep	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
1 - Grading	5	0.00	0.00	5,300.00	14.70	6.90	7.00	LD_Mix	HDT_Mix	HHDT
2 - Roadway Grading	16	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
1 - Building Construction	26	0.00	0.00	1,375.00	14.70	6.90	10.00	LD_Mix	HDT_Mix	HHDT
1 - Paving	6	0.00	0.00	1,594.00	14.70	6.90	22.00	LD_Mix	HDT_Mix	HHDT
2 - Roadway Paving	8	0.00	0.00	1,853.00	14.70	6.90	22.00	LD_Mix	HDT_Mix	HHDT
1 - Architectural Coating	1	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2 - Roadway Arch Coating	1	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Phase 1 Minor Const. Utility Relocations - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.5154	0.0000	5.5154	0.5955	0.0000	0.5955			0.0000			0.0000
Off-Road	5.1896	47.8492	49.4174	0.1145		1.8484	1.8484		1.7388	1.7388		11,003.9053	11,003.9053	2.7514		11,072.6895
Total	**5.1896**	**47.8492**	**49.4174**	**0.1145**	**5.5154**	**1.8484**	**7.3638**	**0.5955**	**1.7388**	**2.3344**		**11,003.9053**	**11,003.9053**	**2.7514**		**11,072.6895**

3.2 Phase 1 Minor Const. Utility Relocations - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4819	0.0000	2.4819	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	5.1896	47.8492	49.4174	0.1145		1.8484	1.8484		1.7388	1.7388	0.0000	11,003.9053	11,003.9053	2.7514		11,072.6895
Total	**5.1896**	**47.8492**	**49.4174**	**0.1145**	**2.4819**	**1.8484**	**4.3304**	**0.2680**	**1.7388**	**2.0068**	**0.0000**	**11,003.9053**	**11,003.9053**	**2.7514**		**11,072.6895**

3.2 Phase 1 Minor Const. Utility Relocations - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Phase 1 Minor Const. Utility Relocations - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.5154	0.0000	5.5154	0.5955	0.0000	0.5955			0.0000			0.0000
Off-Road	5.1896	47.8492	49.4174	0.1145		1.8484	1.8484		1.7388	1.7388		11,003.9053	11,003.9053	2.7514		11,072.6895
Total	**5.1896**	**47.8492**	**49.4174**	**0.1145**	**5.5154**	**1.8484**	**7.3638**	**0.5955**	**1.7388**	**2.3344**		**11,003.9053**	**11,003.9053**	**2.7514**		**11,072.6895**

3.2 Phase 1 Minor Const. Utility Relocations - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4819	0.0000	2.4819	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	5.1896	47.8492	49.4174	0.1145		1.8484	1.8484		1.7388	1.7388	0.0000	11,003.9053	11,003.9053	2.7514		11,072.6895
Total	**5.1896**	**47.8492**	**49.4174**	**0.1145**	**2.4819**	**1.8484**	**4.3304**	**0.2680**	**1.7388**	**2.0068**	**0.0000**	**11,003.9053**	**11,003.9053**	**2.7514**		**11,072.6895**

3.2 Phase 1 Minor Const. Utility Relocations - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Phase 1 Minor Const. Utility Relocations - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.5154	0.0000	5.5154	0.5955	0.0000	0.5955			0.0000			0.0000
Off-Road	5.1896	47.8492	49.4174	0.1145		1.8484	1.8484		1.7388	1.7388		11,003.9053	11,003.9053	2.7514		11,072.6895
Total	**5.1896**	**47.8492**	**49.4174**	**0.1145**	**5.5154**	**1.8484**	**7.3638**	**0.5955**	**1.7388**	**2.3344**		**11,003.9053**	**11,003.9053**	**2.7514**		**11,072.6895**

3.2 Phase 1 Minor Const. Utility Relocations - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4819	0.0000	2.4819	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	5.1896	47.8492	49.4174	0.1145		1.8484	1.8484		1.7388	1.7388	0.0000	11,003.9053	11,003.9053	2.7514		11,072.6895
Total	**5.1896**	**47.8492**	**49.4174**	**0.1145**	**2.4819**	**1.8484**	**4.3304**	**0.2680**	**1.7388**	**2.0068**	**0.0000**	**11,003.9053**	**11,003.9053**	**2.7514**		**11,072.6895**

3.2 Phase 1 Minor Const. Utility Relocations - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.3 Worker and General Delivery Trips - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1721	1.0783	0.9031	2.0800e-003		0.0419	0.0419		0.0419	0.0419		147.9406	147.9406	0.0154		148.3246
Total	**0.1721**	**1.0783**	**0.9031**	**2.0800e-003**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**0.0419**	**0.0419**		**147.9406**	**147.9406**	**0.0154**		**148.3246**

3.3 Worker and General Delivery Trips - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0000e-005	3.8400e-003	1.4300e-003	1.0000e-005	1.6800e-003	0.0000	1.6900e-003	4.2000e-004	0.0000	4.3000e-004		1.3275	1.3275	1.5000e-004		1.3313
Vendor	0.0180	0.5058	0.2234	2.6700e-003	0.0832	9.4000e-004	0.0841	0.0239	9.0000e-004	0.0248		291.9044	291.9044	0.0203		292.4126
Worker	0.2587	0.1217	1.5838	6.5700e-003	0.8942	5.2500e-003	0.8995	0.2372	4.8300e-003	0.2420		655.3110	655.3110	0.0107		655.5783
Total	**0.2768**	**0.6313**	**1.8086**	**9.2500e-003**	**0.9790**	**6.1900e-003**	**0.9853**	**0.2615**	**5.7300e-003**	**0.2672**		**948.5430**	**948.5430**	**0.0312**		**949.3222**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1721	1.0783	0.9031	2.0800e-003		0.0419	0.0419		0.0419	0.0419	0.0000	147.9406	147.9406	0.0154		148.3246
Total	**0.1721**	**1.0783**	**0.9031**	**2.0800e-003**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**147.9406**	**147.9406**	**0.0154**		**148.3246**

3.3 Worker and General Delivery Trips - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0000e-005	3.8400e-003	1.4300e-003	1.0000e-005	1.6800e-003	0.0000	1.6900e-003	4.2000e-004	0.0000	4.3000e-004		1.3275	1.3275	1.5000e-004		1.3313
Vendor	0.0180	0.5058	0.2234	2.6700e-003	0.0832	9.4000e-004	0.0841	0.0239	9.0000e-004	0.0248		291.9044	291.9044	0.0203		292.4126
Worker	0.2587	0.1217	1.5838	6.5700e-003	0.8942	5.2500e-003	0.8995	0.2372	4.8300e-003	0.2420		655.3110	655.3110	0.0107		655.5783
Total	**0.2768**	**0.6313**	**1.8086**	**9.2500e-003**	**0.9790**	**6.1900e-003**	**0.9853**	**0.2615**	**5.7300e-003**	**0.2672**		**948.5430**	**948.5430**	**0.0312**		**949.3222**

3.3 Worker and General Delivery Trips - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1721	1.0783	0.9031	2.0800e-003		0.0419	0.0419		0.0419	0.0419		147.9406	147.9406	0.0154		148.3246
Total	**0.1721**	**1.0783**	**0.9031**	**2.0800e-003**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**0.0419**	**0.0419**		**147.9406**	**147.9406**	**0.0154**		**148.3246**

3.3 Worker and General Delivery Trips - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0000e-005	3.7700e-003	1.4500e-003	1.0000e-005	1.0200e-003	0.0000	1.0200e-003	2.6000e-004	0.0000	2.6000e-004		1.3187	1.3187	1.5000e-004		1.3225
Vendor	0.0177	0.4970	0.2226	2.6500e-003	0.0832	9.2000e-004	0.0841	0.0239	8.8000e-004	0.0248		290.4886	290.4886	0.0202		290.9932
Worker	0.2486	0.1127	1.4926	6.3500e-003	0.8942	4.9700e-003	0.8992	0.2372	4.5700e-003	0.2417		633.9155	633.9155	9.8500e-003		634.1618
Total	**0.2664**	**0.6135**	**1.7166**	**9.0100e-003**	**0.9784**	**5.8900e-003**	**0.9843**	**0.2613**	**5.4500e-003**	**0.2668**		**925.7228**	**925.7228**	**0.0302**		**926.4775**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1721	1.0783	0.9031	2.0800e-003		0.0419	0.0419		0.0419	0.0419	0.0000	147.9406	147.9406	0.0154		148.3246
Total	**0.1721**	**1.0783**	**0.9031**	**2.0800e-003**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**147.9406**	**147.9406**	**0.0154**		**148.3246**

3.3 Worker and General Delivery Trips - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0000e-005	3.7700e-003	1.4500e-003	1.0000e-005	1.0200e-003	0.0000	1.0200e-003	2.6000e-004	0.0000	2.6000e-004		1.3187	1.3187	1.5000e-004		1.3225
Vendor	0.0177	0.4970	0.2226	2.6500e-003	0.0832	9.2000e-004	0.0841	0.0239	8.8000e-004	0.0248		290.4886	290.4886	0.0202		290.9932
Worker	0.2486	0.1127	1.4926	6.3500e-003	0.8942	4.9700e-003	0.8992	0.2372	4.5700e-003	0.2417		633.9155	633.9155	9.8500e-003		634.1618
Total	**0.2664**	**0.6135**	**1.7166**	**9.0100e-003**	**0.9784**	**5.8900e-003**	**0.9843**	**0.2613**	**5.4500e-003**	**0.2668**		**925.7228**	**925.7228**	**0.0302**		**926.4775**

3.3 Worker and General Delivery Trips - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1721	1.0783	0.9031	2.0800e-003		0.0419	0.0419		0.0419	0.0419		147.9406	147.9406	0.0154		148.3246
Total	**0.1721**	**1.0783**	**0.9031**	**2.0800e-003**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**0.0419**	**0.0419**		**147.9406**	**147.9406**	**0.0154**		**148.3246**

3.3 Worker and General Delivery Trips - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0000e-005	3.7100e-003	1.4600e-003	1.0000e-005	1.0200e-003	0.0000	1.0300e-003	2.6000e-004	0.0000	2.6000e-004		1.3108	1.3108	1.5000e-004		1.3145
Vendor	0.0174	0.4899	0.2222	2.6400e-003	0.0832	9.1000e-004	0.0841	0.0239	8.7000e-004	0.0248		289.2997	289.2997	0.0201		289.8009
Worker	0.2378	0.1047	1.4121	6.1600e-003	0.8942	4.5900e-003	0.8988	0.2372	4.2200e-003	0.2414		615.3173	615.3173	9.1200e-003		615.5454
Total	**0.2554**	**0.5983**	**1.6358**	**8.8100e-003**	**0.9784**	**5.5000e-003**	**0.9839**	**0.2613**	**5.0900e-003**	**0.2664**		**905.9278**	**905.9278**	**0.0293**		**906.6607**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1721	1.0783	0.9031	2.0800e-003		0.0419	0.0419		0.0419	0.0419	0.0000	147.9406	147.9406	0.0154		148.3246
Total	**0.1721**	**1.0783**	**0.9031**	**2.0800e-003**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**147.9406**	**147.9406**	**0.0154**		**148.3246**

3.3 Worker and General Delivery Trips - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0000e-005	3.7100e-003	1.4600e-003	1.0000e-005	1.0200e-003	0.0000	1.0300e-003	2.6000e-004	0.0000	2.6000e-004		1.3108	1.3108	1.5000e-004		1.3145
Vendor	0.0174	0.4899	0.2222	2.6400e-003	0.0832	9.1000e-004	0.0841	0.0239	8.7000e-004	0.0248		289.2997	289.2997	0.0201		289.8009
Worker	0.2378	0.1047	1.4121	6.1600e-003	0.8942	4.5900e-003	0.8988	0.2372	4.2200e-003	0.2414		615.3173	615.3173	9.1200e-003		615.5454
Total	**0.2554**	**0.5983**	**1.6358**	**8.8100e-003**	**0.9784**	**5.5000e-003**	**0.9839**	**0.2613**	**5.0900e-003**	**0.2664**		**905.9278**	**905.9278**	**0.0293**		**906.6607**

3.3 Worker and General Delivery Trips - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1721	1.0783	0.9031	2.0800e-003		0.0419	0.0419		0.0419	0.0419		147.9406	147.9406	0.0154		148.3246
Total	**0.1721**	**1.0783**	**0.9031**	**2.0800e-003**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**0.0419**	**0.0419**		**147.9406**	**147.9406**	**0.0154**		**148.3246**

3.3 Worker and General Delivery Trips - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0000e-005	3.6500e-003	1.4800e-003	1.0000e-005	1.0200e-003	0.0000	1.0200e-003	2.6000e-004	0.0000	2.6000e-004		1.3035	1.3035	1.5000e-004		1.3072
Vendor	0.0172	0.4832	0.2217	2.6300e-003	0.0832	9.0000e-004	0.0840	0.0239	8.6000e-004	0.0248		288.2029	288.2029	0.0199		288.7011
Worker	0.2258	0.0973	1.3358	6.0000e-003	0.8942	4.2600e-003	0.8985	0.2372	3.9100e-003	0.2411		599.0741	599.0741	8.4400e-003		599.2850
Total	**0.2431**	**0.5842**	**1.5589**	**8.6400e-003**	**0.9784**	**5.1600e-003**	**0.9835**	**0.2613**	**4.7700e-003**	**0.2661**		**888.5805**	**888.5805**	**0.0285**		**889.2933**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1721	1.0783	0.9031	2.0800e-003		0.0419	0.0419		0.0419	0.0419	0.0000	147.9406	147.9406	0.0154		148.3246
Total	**0.1721**	**1.0783**	**0.9031**	**2.0800e-003**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**147.9406**	**147.9406**	**0.0154**		**148.3246**

3.3 Worker and General Delivery Trips - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0000e-005	3.6500e-003	1.4800e-003	1.0000e-005	1.0200e-003	0.0000	1.0200e-003	2.6000e-004	0.0000	2.6000e-004		1.3035	1.3035	1.5000e-004		1.3072
Vendor	0.0172	0.4832	0.2217	2.6300e-003	0.0832	9.0000e-004	0.0840	0.0239	8.6000e-004	0.0248		288.2029	288.2029	0.0199		288.7011
Worker	0.2258	0.0973	1.3358	6.0000e-003	0.8942	4.2600e-003	0.8985	0.2372	3.9100e-003	0.2411		599.0741	599.0741	8.4400e-003		599.2850
Total	**0.2431**	**0.5842**	**1.5589**	**8.6400e-003**	**0.9784**	**5.1600e-003**	**0.9835**	**0.2613**	**4.7700e-003**	**0.2661**		**888.5805**	**888.5805**	**0.0285**		**889.2933**

3.3 Worker and General Delivery Trips - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1721	1.0783	0.9033	2.0800e-003		0.0419	0.0419		0.0419	0.0419		147.9406	147.9406	0.0154		148.3246
Total	**0.1721**	**1.0783**	**0.9033**	**2.0800e-003**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**0.0419**	**0.0419**		**147.9406**	**147.9406**	**0.0154**		**148.3246**

3.3 Worker and General Delivery Trips - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0000e-005	3.6000e-003	1.4900e-003	1.0000e-005	1.0200e-003	0.0000	1.0200e-003	2.6000e-004	0.0000	2.6000e-004		1.2970	1.2970	1.4000e-004		1.3006
Vendor	0.0170	0.4767	0.2211	2.6200e-003	0.0832	8.8000e-004	0.0840	0.0239	8.4000e-004	0.0248		287.1765	287.1765	0.0198		287.6717
Worker	0.2131	0.0905	1.2652	5.8600e-003	0.8942	3.9600e-003	0.8982	0.2372	3.6400e-003	0.2408		584.8714	584.8714	7.8100e-003		585.0666
Total	**0.2302**	**0.5708**	**1.4878**	**8.4900e-003**	**0.9784**	**4.8400e-003**	**0.9832**	**0.2613**	**4.4800e-003**	**0.2658**		**873.3449**	**873.3449**	**0.0278**		**874.0390**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1721	1.0783	0.9033	2.0800e-003		0.0419	0.0419		0.0419	0.0419	0.0000	147.9406	147.9406	0.0154		148.3246
Total	**0.1721**	**1.0783**	**0.9033**	**2.0800e-003**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**147.9406**	**147.9406**	**0.0154**		**148.3246**

3.3 Worker and General Delivery Trips - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0000e-005	3.6000e-003	1.4900e-003	1.0000e-005	1.0200e-003	0.0000	1.0200e-003	2.6000e-004	0.0000	2.6000e-004		1.2970	1.2970	1.4000e-004		1.3006
Vendor	0.0170	0.4767	0.2211	2.6200e-003	0.0832	8.8000e-004	0.0840	0.0239	8.4000e-004	0.0248		287.1765	287.1765	0.0198		287.6717
Worker	0.2131	0.0905	1.2652	5.8600e-003	0.8942	3.9600e-003	0.8982	0.2372	3.6400e-003	0.2408		584.8714	584.8714	7.8100e-003		585.0666
Total	**0.2302**	**0.5708**	**1.4878**	**8.4900e-003**	**0.9784**	**4.8400e-003**	**0.9832**	**0.2613**	**4.4800e-003**	**0.2658**		**873.3449**	**873.3449**	**0.0278**		**874.0390**

3.3 Worker and General Delivery Trips - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1721	1.0783	0.9033	2.0800e-003		0.0419	0.0419		0.0419	0.0419		147.9406	147.9406	0.0154		148.3246
Total	**0.1721**	**1.0783**	**0.9033**	**2.0800e-003**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**0.0419**	**0.0419**		**147.9406**	**147.9406**	**0.0154**		**148.3246**

3.3 Worker and General Delivery Trips - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0000e-005	3.5400e-003	1.5000e-003	1.0000e-005	2.3700e-003	0.0000	2.3800e-003	5.9000e-004	0.0000	5.9000e-004		1.2917	1.2917	1.4000e-004		1.2953
Vendor	0.0168	0.4691	0.2210	2.6100e-003	0.0832	8.7000e-004	0.0840	0.0239	8.3000e-004	0.0247		286.3692	286.3692	0.0197		286.8623
Worker	0.1989	0.0839	1.1978	5.7200e-003	0.8942	3.6800e-003	0.8979	0.2372	3.3800e-003	0.2405		571.1039	571.1039	7.1900e-003		571.2836
Total	**0.2157**	**0.5565**	**1.4203**	**8.3400e-003**	**0.9797**	**4.5500e-003**	**0.9843**	**0.2617**	**4.2100e-003**	**0.2659**		**858.7648**	**858.7648**	**0.0271**		**859.4412**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1721	1.0783	0.9033	2.0800e-003		0.0419	0.0419		0.0419	0.0419	0.0000	147.9406	147.9406	0.0154		148.3246
Total	**0.1721**	**1.0783**	**0.9033**	**2.0800e-003**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**147.9406**	**147.9406**	**0.0154**		**148.3246**

3.3 Worker and General Delivery Trips - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0000e-005	3.5400e-003	1.5000e-003	1.0000e-005	2.3700e-003	0.0000	2.3800e-003	5.9000e-004	0.0000	5.9000e-004		1.2917	1.2917	1.4000e-004		1.2953
Vendor	0.0168	0.4691	0.2210	2.6100e-003	0.0832	8.7000e-004	0.0840	0.0239	8.3000e-004	0.0247		286.3692	286.3692	0.0197		286.8623
Worker	0.1989	0.0839	1.1978	5.7200e-003	0.8942	3.6800e-003	0.8979	0.2372	3.3800e-003	0.2405		571.1039	571.1039	7.1900e-003		571.2836
Total	**0.2157**	**0.5565**	**1.4203**	**8.3400e-003**	**0.9797**	**4.5500e-003**	**0.9843**	**0.2617**	**4.2100e-003**	**0.2659**		**858.7648**	**858.7648**	**0.0271**		**859.4412**

3.4 1 - Grading - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.1391	0.0000	7.1391	3.4333	0.0000	3.4333			0.0000			0.0000
Off-Road	1.8336	15.8982	14.8057	0.0399		0.6668	0.6668		0.6135	0.6135		3,865.5797	3,865.5797	1.2502		3,896.8349
Total	**1.8336**	**15.8982**	**14.8057**	**0.0399**	**7.1391**	**0.6668**	**7.8060**	**3.4333**	**0.6135**	**4.0468**		**3,865.5797**	**3,865.5797**	**1.2502**		**3,896.8349**

3.4 1 - Grading - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2224	8.9599	3.5345	0.0280	0.6106	0.0107	0.6213	0.1673	0.0102	0.1775		3,167.6713	3,167.6713	0.3565		3,176.5843
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.2224**	**8.9599**	**3.5345**	**0.0280**	**0.6106**	**0.0107**	**0.6213**	**0.1673**	**0.0102**	**0.1775**		**3,167.6713**	**3,167.6713**	**0.3565**		**3,176.5843**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2126	0.0000	3.2126	1.5450	0.0000	1.5450			0.0000			0.0000
Off-Road	1.8336	15.8982	14.8057	0.0399		0.6668	0.6668		0.6135	0.6135	0.0000	3,865.5797	3,865.5797	1.2502		3,896.8349
Total	**1.8336**	**15.8982**	**14.8057**	**0.0399**	**3.2126**	**0.6668**	**3.8794**	**1.5450**	**0.6135**	**2.1585**	**0.0000**	**3,865.5797**	**3,865.5797**	**1.2502**		**3,896.8349**

3.4 1 - Grading - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2224	8.9599	3.5345	0.0280	0.6106	0.0107	0.6213	0.1673	0.0102	0.1775		3,167.6713	3,167.6713	0.3565		3,176.5843
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.2224**	**8.9599**	**3.5345**	**0.0280**	**0.6106**	**0.0107**	**0.6213**	**0.1673**	**0.0102**	**0.1775**		**3,167.6713**	**3,167.6713**	**0.3565**		**3,176.5843**

3.5 1 - Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	7.5660	69.4256	66.0329	0.1784		2.7283	2.7283		2.5145	2.5145		17,211.4707	17,211.4707	5.5081		17,349.1721
Total	**7.5660**	**69.4256**	**66.0329**	**0.1784**		**2.7283**	**2.7283**		**2.5145**	**2.5145**		**17,211.4707**	**17,211.4707**	**5.5081**		**17,349.1721**

3.5 1 - Building Construction - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0159	0.5753	0.2548	2.1400e-003	0.1040	8.3000e-004	0.1048	0.0270	8.0000e-004	0.0278		242.3518	242.3518	0.0270		243.0257
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0159**	**0.5753**	**0.2548**	**2.1400e-003**	**0.1040**	**8.3000e-004**	**0.1048**	**0.0270**	**8.0000e-004**	**0.0278**		**242.3518**	**242.3518**	**0.0270**		**243.0257**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	7.5660	69.4256	66.0329	0.1784		2.7283	2.7283		2.5145	2.5145	0.0000	17,211.4707	17,211.4707	5.5081		17,349.1721
Total	**7.5660**	**69.4256**	**66.0329**	**0.1784**		**2.7283**	**2.7283**		**2.5145**	**2.5145**	**0.0000**	**17,211.4707**	**17,211.4707**	**5.5081**		**17,349.1721**

3.5 1 - Building Construction - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0159	0.5753	0.2548	2.1400e-003	0.1040	8.3000e-004	0.1048	0.0270	8.0000e-004	0.0278		242.3518	242.3518	0.0270		243.0257
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0159**	**0.5753**	**0.2548**	**2.1400e-003**	**0.1040**	**8.3000e-004**	**0.1048**	**0.0270**	**8.0000e-004**	**0.0278**		**242.3518**	**242.3518**	**0.0270**		**243.0257**

3.5 1 - Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	7.5660	69.4256	66.0329	0.1784		2.7283	2.7283		2.5145	2.5145		17,211.4707	17,211.4707	5.5081		17,349.1721
Total	**7.5660**	**69.4256**	**66.0329**	**0.1784**		**2.7283**	**2.7283**		**2.5145**	**2.5145**		**17,211.4707**	**17,211.4707**	**5.5081**		**17,349.1721**

3.5 1 - Building Construction - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0158	0.5656	0.2571	2.1300e-003	0.0776	8.1000e-004	0.0784	0.0205	7.8000e-004	0.0212		241.0937	241.0937	0.0268		241.7625
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0158**	**0.5656**	**0.2571**	**2.1300e-003**	**0.0776**	**8.1000e-004**	**0.0784**	**0.0205**	**7.8000e-004**	**0.0212**		**241.0937**	**241.0937**	**0.0268**		**241.7625**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	7.5660	69.4256	66.0329	0.1784		2.7283	2.7283		2.5145	2.5145	0.0000	17,211.4707	17,211.4707	5.5081		17,349.1721
Total	**7.5660**	**69.4256**	**66.0329**	**0.1784**		**2.7283**	**2.7283**		**2.5145**	**2.5145**	**0.0000**	**17,211.4707**	**17,211.4707**	**5.5081**		**17,349.1721**

3.5 1 - Building Construction - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0158	0.5656	0.2571	2.1300e-003	0.0776	8.1000e-004	0.0784	0.0205	7.8000e-004	0.0212		241.0937	241.0937	0.0268		241.7625
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0158**	**0.5656**	**0.2571**	**2.1300e-003**	**0.0776**	**8.1000e-004**	**0.0784**	**0.0205**	**7.8000e-004**	**0.0212**		**241.0937**	**241.0937**	**0.0268**		**241.7625**

3.6 2 - Roadway Site Prep - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7079	6.4010	8.6225	0.0182		0.2743	0.2743		0.2523	0.2523		1,758.9442	1,758.9442	0.5689		1,773.1662
Total	**0.7079**	**6.4010**	**8.6225**	**0.0182**	**0.5303**	**0.2743**	**0.8045**	**0.0573**	**0.2523**	**0.3096**		**1,758.9442**	**1,758.9442**	**0.5689**		**1,773.1662**

3.6 2 - Roadway Site Prep - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2386	0.0000	0.2386	0.0258	0.0000	0.0258			0.0000			0.0000
Off-Road	0.7079	6.4010	8.6225	0.0182		0.2743	0.2743		0.2523	0.2523	0.0000	1,758.9442	1,758.9442	0.5689		1,773.1662
Total	**0.7079**	**6.4010**	**8.6225**	**0.0182**	**0.2386**	**0.2743**	**0.5129**	**0.0258**	**0.2523**	**0.2781**	**0.0000**	**1,758.9442**	**1,758.9442**	**0.5689**		**1,773.1662**

3.6 2 - Roadway Site Prep - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.7 1 - Paving - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8792	8.4239	13.6508	0.0202		0.4004	0.4004		0.3683	0.3683		1,953.6607	1,953.6607	0.6319		1,969.4570
Paving	0.4554					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3346**	**8.4239**	**13.6508**	**0.0202**		**0.4004**	**0.4004**		**0.3683**	**0.3683**		**1,953.6607**	**1,953.6607**	**0.6319**		**1,969.4570**

3.7 1 - Paving - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0673	1.8934	1.1057	0.0101	0.2654	4.0100e-003	0.2694	0.0727	3.8400e-003	0.0765		1,145.5889	1,145.5889	0.1252		1,148.7198
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0673**	**1.8934**	**1.1057**	**0.0101**	**0.2654**	**4.0100e-003**	**0.2694**	**0.0727**	**3.8400e-003**	**0.0765**		**1,145.5889**	**1,145.5889**	**0.1252**		**1,148.7198**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8792	8.4239	13.6508	0.0202		0.4004	0.4004		0.3683	0.3683	0.0000	1,953.6607	1,953.6607	0.6319		1,969.4570
Paving	0.4554					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3346**	**8.4239**	**13.6508**	**0.0202**		**0.4004**	**0.4004**		**0.3683**	**0.3683**	**0.0000**	**1,953.6607**	**1,953.6607**	**0.6319**		**1,969.4570**

3.7 1 - Paving - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0673	1.8934	1.1057	0.0101	0.2654	4.0100e-003	0.2694	0.0727	3.8400e-003	0.0765		1,145.5889	1,145.5889	0.1252		1,148.7198
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0673**	**1.8934**	**1.1057**	**0.0101**	**0.2654**	**4.0100e-003**	**0.2694**	**0.0727**	**3.8400e-003**	**0.0765**		**1,145.5889**	**1,145.5889**	**0.1252**		**1,148.7198**

3.8 2 - Roadway Grading - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.6962	0.0000	3.6962	0.3991	0.0000	0.3991			0.0000			0.0000
Off-Road	4.3494	40.2287	43.1004	0.1041		1.5846	1.5846		1.4578	1.4578		10,077.7001	10,077.7001	3.2593		10,159.1834
Total	**4.3494**	**40.2287**	**43.1004**	**0.1041**	**3.6962**	**1.5846**	**5.2808**	**0.3991**	**1.4578**	**1.8569**		**10,077.7001**	**10,077.7001**	**3.2593**		**10,159.1834**

3.8 2 - Roadway Grading - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.6633	0.0000	1.6633	0.1796	0.0000	0.1796			0.0000			0.0000
Off-Road	4.3494	40.2287	43.1004	0.1041		1.5846	1.5846		1.4578	1.4578	0.0000	10,077.7001	10,077.7001	3.2593		10,159.1834
Total	**4.3494**	**40.2287**	**43.1004**	**0.1041**	**1.6633**	**1.5846**	**3.2479**	**0.1796**	**1.4578**	**1.6374**	**0.0000**	**10,077.7001**	**10,077.7001**	**3.2593**		**10,159.1834**

3.8 2 - Roadway Grading - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.8 2 - Roadway Grading - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.6962	0.0000	3.6962	0.3991	0.0000	0.3991			0.0000			0.0000
Off-Road	5.1534	20.1418	40.8072	0.1188		0.6717	0.6717		0.6717	0.6717		12,099.2592	12,099.2592	0.4558		12,110.6530
Total	**5.1534**	**20.1418**	**40.8072**	**0.1188**	**3.6962**	**0.6717**	**4.3679**	**0.3991**	**0.6717**	**1.0708**		**12,099.2592**	**12,099.2592**	**0.4558**		**12,110.6530**

3.8 2 - Roadway Grading - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.6633	0.0000	1.6633	0.1796	0.0000	0.1796			0.0000			0.0000
Off-Road	5.1534	20.1418	40.8072	0.1188		0.6717	0.6717		0.6717	0.6717	0.0000	12,099.2592	12,099.2592	0.4558		12,110.6530
Total	**5.1534**	**20.1418**	**40.8072**	**0.1188**	**1.6633**	**0.6717**	**2.3350**	**0.1796**	**0.6717**	**0.8513**	**0.0000**	**12,099.2592**	**12,099.2592**	**0.4558**		**12,110.6530**

3.8 2 - Roadway Grading - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.9 1 - Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.1057					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**2.2766**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.9 1 - Architectural Coating - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.1057					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**2.2766**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.9 1 - Architectural Coating - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.9 1 - Architectural Coating - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.1057					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**2.2365**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.9 1 - Architectural Coating - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.1057					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**2.2365**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.9 1 - Architectural Coating - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.10 2 - Roadway Paving - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5046	8.5042	18.8343	0.0318		0.2696	0.2696		0.2696	0.2696		3,007.2243	3,007.2243	0.1343		3,010.5808
Paving	0.4554					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9600**	**8.5042**	**18.8343**	**0.0318**		**0.2696**	**0.2696**		**0.2696**	**0.2696**		**3,007.2243**	**3,007.2243**	**0.1343**		**3,010.5808**

3.10 2 - Roadway Paving - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0775	2.1558	1.2926	0.0117	0.3085	4.5700e-003	0.3131	0.0845	4.3700e-003	0.0888		1,325.8061	1,325.8061	0.1450		1,329.4308
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0775**	**2.1558**	**1.2926**	**0.0117**	**0.3085**	**4.5700e-003**	**0.3131**	**0.0845**	**4.3700e-003**	**0.0888**		**1,325.8061**	**1,325.8061**	**0.1450**		**1,329.4308**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5046	8.5042	18.8343	0.0318		0.2696	0.2696		0.2696	0.2696	0.0000	3,007.2243	3,007.2243	0.1343		3,010.5808
Paving	0.4554					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9600**	**8.5042**	**18.8343**	**0.0318**		**0.2696**	**0.2696**		**0.2696**	**0.2696**	**0.0000**	**3,007.2243**	**3,007.2243**	**0.1343**		**3,010.5808**

3.10 2 - Roadway Paving - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0775	2.1558	1.2926	0.0117	0.3085	4.5700e-003	0.3131	0.0845	4.3700e-003	0.0888		1,325.8061	1,325.8061	0.1450		1,329.4308
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0775**	**2.1558**	**1.2926**	**0.0117**	**0.3085**	**4.5700e-003**	**0.3131**	**0.0845**	**4.3700e-003**	**0.0888**		**1,325.8061**	**1,325.8061**	**0.1450**		**1,329.4308**

3.11 2 - Roadway Arch Coating - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.1057					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**2.2365**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.11 2 - Roadway Arch Coating - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.1057					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**2.2365**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.11 2 - Roadway Arch Coating - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.11 2 - Roadway Arch Coating - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.1057					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**2.2365**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.11 2 - Roadway Arch Coating - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.1057					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**2.2365**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.11 2 - Roadway Arch Coating - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.570439	0.042308	0.209216	0.102853	0.012546	0.005789	0.027115	0.020014	0.001894	0.001437	0.004997	0.000631	0.000762

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3750	2.0000e-005	2.0300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3700e-003	4.3700e-003	1.0000e-005		4.6600e-003
Unmitigated	0.3750	2.0000e-005	2.0300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3700e-003	4.3700e-003	1.0000e-005		4.6600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0664					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3084					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.9000e-004	2.0000e-005	2.0300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3700e-003	4.3700e-003	1.0000e-005		4.6600e-003
Total	**0.3750**	**2.0000e-005**	**2.0300e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**4.3700e-003**	**4.3700e-003**	**1.0000e-005**		**4.6600e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0664					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3084					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.9000e-004	2.0000e-005	2.0300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3700e-003	4.3700e-003	1.0000e-005		4.6600e-003
Total	**0.3750**	**2.0000e-005**	**2.0300e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**4.3700e-003**	**4.3700e-003**	**1.0000e-005**		**4.6600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Brea Boulevard Corridor Improvement Project

Orange County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	19.99	Acre	19.99	870,764.40	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2032
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Brea Boulevard Corridor Improvement Project - Orange County, Summer

Project Characteristics -

Land Use - Based on project acreage which includes permanent disturbance area, existing roadway, and proposed open graded asphalt concrete area.

Construction Phase - Overall construction schedule based on project specific duration. Subphase durations scaled based on CalEEMod and SMAQMD Road Construction Model. Daily worker and general delivery trips modeled as separate phase to avoid overlap.

Off-road Equipment -

Off-road Equipment - Based on project specific equipment and SMAQMD defaults in Roadway Construction Model. Off-highway truck = truck crane

Off-road Equipment - Based on project specific equipment and SMAQMD defaults in Roadway Construction Model. Off-highway truck = water truck.

Off-road Equipment - Based on project specific equipment and SMAQMD defaults in Roadway Construction Model

Off-road Equipment -

Off-road Equipment - Based on project specific equipment and SMAQMD defaults in Roadway Construction Model. Off-highway truck = water truck.

Off-road Equipment - Based on project specific equipment and SMAQMD defaults in Roadway Construction Model

Off-road Equipment - Based on project specific equipment and SMAQMD defaults in Roadway Construction Model

Off-road Equipment - Based on project specific equipment and SMAQMD defaults in Roadway Construction Model

Off-road Equipment - Based on project specific equipment and SMAQMD defaults in Roadway Construction Model.

Trips and VMT - Based on project specific quantities and trip lengths. Assumes average 40 workers daily. Roadway paving trips includes additional trips for additional milling removal for OGAC element.

Grading - Accounts for material export and base import. Concrete, asphalt, waste, and millings quantities calculated in trip screen.

Construction Off-road Equipment Mitigation - Assumes implemenation of SCAQMD fugitive dust control regulations.

Architectural Coating -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Fleet Mix -

Area Coating -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	115.00

tblConstructionPhase	NumDays	20.00	115.00
tblConstructionPhase	NumDays	300.00	238.00
tblConstructionPhase	NumDays	30.00	53.00
tblConstructionPhase	NumDays	30.00	238.00
tblConstructionPhase	NumDays	20.00	115.00
tblConstructionPhase	NumDays	20.00	115.00
tblConstructionPhase	NumDays	10.00	523.00
tblConstructionPhase	NumDays	10.00	1,305.00
tblConstructionPhase	NumDays	10.00	53.00
tblGrading	AcresOfGrading	26.50	53.00
tblGrading	AcresOfGrading	833.00	829.50
tblGrading	AcresOfGrading	2,615.00	2,720.00
tblGrading	MaterialExported	0.00	20,000.00
tblGrading	MaterialImported	0.00	6,500.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	PhaseName		1 - Building Construction
tblOffRoadEquipment	PhaseName		1 - Building Construction
tblOffRoadEquipment	PhaseName		1 - Grading
tblOffRoadEquipment	PhaseName		1 - Building Construction
tblOffRoadEquipment	PhaseName		2 - Roadway Site Prep
tblOffRoadEquipment	PhaseName		2 - Roadway Grading
tblOffRoadEquipment	PhaseName		1 - Building Construction
tblOffRoadEquipment	PhaseName		2 - Roadway Site Prep
tblOffRoadEquipment	PhaseName		1 - Building Construction
tblOffRoadEquipment	PhaseName		1 - Grading
tblOffRoadEquipment	PhaseName		1 - Building Construction
tblOffRoadEquipment	PhaseName		2 - Roadway Grading
tblOffRoadEquipment	PhaseName		1 - Building Construction
tblOffRoadEquipment	PhaseName		2 - Roadway Grading
tblOffRoadEquipment	PhaseName		1 - Building Construction
tblOffRoadEquipment	PhaseName		2 - Roadway Grading
tblOffRoadEquipment	PhaseName		1 - Building Construction
tblOffRoadEquipment	PhaseName		Worker and General Delivery Trips
tblOffRoadEquipment	PhaseName		1 - Grading
tblOffRoadEquipment	PhaseName		1 - Paving
tblOffRoadEquipment	PhaseName		2 - Roadway Paving
tblOffRoadEquipment	PhaseName		1 - Paving
tblOffRoadEquipment	PhaseName		2 - Roadway Paving

tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
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tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	7.00
tblTripsAndVMT	HaulingTripLength	20.00	7.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	22.00
tblTripsAndVMT	HaulingTripLength	20.00	22.00
tblTripsAndVMT	HaulingTripNumber	0.00	54.00
tblTripsAndVMT	HaulingTripNumber	3,313.00	5,300.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,375.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,594.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,853.00
tblTripsAndVMT	VendorTripLength	6.90	15.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	143.00	0.00
tblTripsAndVMT	WorkerTripNumber	38.00	0.00
tblTripsAndVMT	WorkerTripNumber	73.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	80.00
tblTripsAndVMT	WorkerTripNumber	13.00	0.00

tblTripsAndVMT	WorkerTripNumber	366.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	40.00	0.00
tblTripsAndVMT	WorkerTripNumber	73.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2026	5.6043	49.5456	52.2618	0.1262	6.4945	1.8965	8.3910	0.8570	1.7865	2.6435	0.0000	12,141.0068	12,141.0068	2.7982	0.0000	12,210.9605
2027	5.5946	49.5287	52.1630	0.1259	6.4938	1.8962	8.3900	0.8569	1.7862	2.6430	0.0000	12,116.9418	12,116.9418	2.7971	0.0000	12,186.8703
2028	7.9763	71.6699	68.9333	0.1919	8.7282	2.7765	9.4525	3.8619	2.5622	4.5321	0.0000	18,552.5175	18,552.5175	5.5793	0.0000	18,691.9987
2029	8.6730	78.0477	77.4759	0.2099	4.9399	3.0504	6.9759	0.7331	2.8142	3.1532	0.0000	20,291.8642	20,291.8642	6.1471	0.0000	20,445.5423
2030	7.7623	22.6372	45.1056	0.1327	4.6745	0.7388	5.4133	0.6604	0.7384	1.3988	0.0000	13,438.5687	13,438.5687	0.5104	0.0000	13,451.3292
2031	2.5962	2.4818	4.2266	0.0137	0.9797	0.0668	1.0465	0.2617	0.0664	0.3281	0.0000	1,323.9836	1,323.9836	0.0539	0.0000	1,325.3323
Maximum	**8.6730**	**78.0477**	**77.4759**	**0.2099**	**8.7282**	**3.0504**	**9.4525**	**3.8619**	**2.8142**	**4.5321**	**0.0000**	**20,291.8642**	**20,291.8642**	**6.1471**	**0.0000**	**20,445.5423**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2026	5.6043	49.5456	52.2618	0.1262	3.4610	1.8965	5.3575	0.5295	1.7865	2.3159	0.0000	12,141.0068	12,141.0068	2.7982	0.0000	12,210.9605
2027	5.5946	49.5287	52.1630	0.1259	3.4603	1.8962	5.3565	0.5293	1.7862	2.3155	0.0000	12,116.9417	12,116.9417	2.7971	0.0000	12,186.8703
2028	7.9763	71.6699	68.9333	0.1919	4.8016	2.7765	5.5260	1.9736	2.5622	2.8505	0.0000	18,552.5175	18,552.5175	5.5793	0.0000	18,691.9986
2029	8.6730	78.0477	77.4759	0.2099	2.9070	3.0504	4.9430	0.5136	2.8142	3.1217	0.0000	20,291.8642	20,291.8642	6.1471	0.0000	20,445.5422
2030	7.7623	22.6372	45.1056	0.1327	2.6417	0.7388	3.3804	0.4409	0.7384	1.1793	0.0000	13,438.5687	13,438.5687	0.5104	0.0000	13,451.3292
2031	2.5962	2.4818	4.2266	0.0137	0.9797	0.0668	1.0465	0.2617	0.0664	0.3281	0.0000	1,323.9836	1,323.9836	0.0539	0.0000	1,325.3322
Maximum	**8.6730**	**78.0477**	**77.4759**	**0.2099**	**4.8016**	**3.0504**	**5.5260**	**1.9736**	**2.8142**	**3.1217**	**0.0000**	**20,291.8642**	**20,291.8642**	**6.1471**	**0.0000**	**20,445.5422**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**43.51**	**0.00**	**35.44**	**41.25**	**0.00**	**17.60**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3750	2.0000e-005	2.0300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3700e-003	4.3700e-003	1.0000e-005		4.6600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.3750**	**2.0000e-005**	**2.0300e-003**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**1.0000e-005**		**4.3700e-003**	**4.3700e-003**	**1.0000e-005**	**0.0000**	**4.6600e-003**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3750	2.0000e-005	2.0300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3700e-003	4.3700e-003	1.0000e-005		4.6600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.3750**	**2.0000e-005**	**2.0300e-003**	**0.0000**	**0.0000**	**1.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**1.0000e-005**		**4.3700e-003**	**4.3700e-003**	**1.0000e-005**	**0.0000**	**4.6600e-003**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Phase 1 Minor Const. Utility Relocations	Site Preparation	6/1/2026	5/31/2028	5	523	
2	Worker and General Delivery Trips	Site Preparation	6/1/2026	5/30/2031	5	1305	
3	1 - Grading	Grading	6/1/2028	8/14/2028	5	53	
4	1 - Building Construction	Building Construction	8/15/2028	7/12/2029	5	238	
5	2 - Roadway Site Prep	Site Preparation	6/1/2029	8/14/2029	5	53	
6	1 - Paving	Paving	7/13/2029	12/20/2029	5	115	
7	2 - Roadway Grading	Grading	8/15/2029	7/12/2030	5	238	
8	1 - Architectural Coating	Architectural Coating	12/21/2029	5/30/2030	5	115	
9	2 - Roadway Paving	Paving	7/13/2030	12/20/2030	5	115	
10	2 - Roadway Arch Coating	Architectural Coating	12/21/2030	5/30/2031	5	115	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 19.99

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 52,246 (Architectural Coating – sqft)

OffRoad Equipment

Brea Boulevard Corridor Improvement Project - Orange County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Phase 1 Minor Const. Utility Relocations	Air Compressors	1	8.00	78	0.48
Phase 1 Minor Const. Utility Relocations	Concrete/Industrial Saws	1	8.00	81	0.73
Phase 1 Minor Const. Utility Relocations	Crushing/Proc. Equipment	1	8.00	85	0.78
Phase 1 Minor Const. Utility Relocations	Generator Sets	1	8.00	84	0.74
Phase 1 Minor Const. Utility Relocations	Graders	2	8.00	187	0.41
Phase 1 Minor Const. Utility Relocations	Plate Compactors	1	8.00	8	0.43
Phase 1 Minor Const. Utility Relocations	Pumps	1	8.00	84	0.74
Phase 1 Minor Const. Utility Relocations	Rough Terrain Forklifts	1	8.00	100	0.40
Phase 1 Minor Const. Utility Relocations	Rubber Tired Dozers	0	0.00	247	0.40
Phase 1 Minor Const. Utility Relocations	Scrapers	4	8.00	367	0.48
Phase 1 Minor Const. Utility Relocations	Signal Boards	0	0.00	6	0.82
Phase 1 Minor Const. Utility Relocations	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Phase 1 Minor Const. Utility Relocations	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Worker and General Delivery Trips	Rubber Tired Dozers	0	0.00	247	0.40
Worker and General Delivery Trips	Signal Boards	3	8.00	6	0.82
Worker and General Delivery Trips	Tractors/Loaders/Backhoes	0	0.00	97	0.37
2 - Roadway Site Prep	Crawler Tractors	1	8.00	212	0.43
2 - Roadway Site Prep	Excavators	2	8.00	158	0.38
2 - Roadway Site Prep	Rubber Tired Dozers	0	0.00	247	0.40
2 - Roadway Site Prep	Tractors/Loaders/Backhoes	0	0.00	97	0.37
1 - Grading	Crawler Tractors	1	8.00	212	0.43
1 - Grading	Excavators	2	8.00	158	0.38
1 - Grading	Graders	0	0.00	187	0.41

1 - Grading	Off-Highway Trucks	1	8.00	402	0.38
1 - Grading	Rubber Tired Dozers	1	8.00	247	0.40
1 - Grading	Signal Boards	0	0.00	6	0.82
1 - Grading	Tractors/Loaders/Backhoes	0	0.00	97	0.37
2 - Roadway Grading	Crawler Tractors	1	8.00	212	0.43
2 - Roadway Grading	Excavators	3	8.00	158	0.38
2 - Roadway Grading	Graders	2	8.00	187	0.41
2 - Roadway Grading	Off-Highway Trucks	1	8.00	402	0.38
2 - Roadway Grading	Rollers	2	8.00	80	0.38
2 - Roadway Grading	Rubber Tired Dozers	0	8.00	247	0.40
2 - Roadway Grading	Rubber Tired Loaders	1	8.00	203	0.36
2 - Roadway Grading	Scrapers	2	8.00	367	0.48
2 - Roadway Grading	Tractors/Loaders/Backhoes	4	8.00	97	0.37
1 - Building Construction	Bore/Drill Rigs	1	8.00	221	0.50
1 - Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
1 - Building Construction	Cranes	2	7.00	231	0.29
1 - Building Construction	Crawler Tractors	2	8.00	212	0.43
1 - Building Construction	Excavators	4	8.00	158	0.38
1 - Building Construction	Forklifts	0	0.00	89	0.20
1 - Building Construction	Generator Sets	0	0.00	84	0.74
1 - Building Construction	Graders	2	8.00	187	0.41
1 - Building Construction	Off-Highway Trucks	1	8.00	402	0.38
1 - Building Construction	Rollers	3	8.00	80	0.38
1 - Building Construction	Rubber Tired Loaders	3	8.00	203	0.36
1 - Building Construction	Scrapers	4	8.00	367	0.48
1 - Building Construction	Tractors/Loaders/Backhoes	2	7.00	97	0.37
1 - Building Construction	Welders	1	8.00	46	0.45

1 - Paving	Pavers	1	8.00	130	0.42
1 - Paving	Paving Equipment	1	8.00	132	0.36
1 - Paving	Rollers	1	8.00	80	0.38
1 - Paving	Sweepers/Scrubbers	1	8.00	64	0.46
1 - Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
2 - Roadway Paving	Pavers	1	8.00	130	0.42
2 - Roadway Paving	Paving Equipment	1	8.00	132	0.36
2 - Roadway Paving	Rollers	2	8.00	80	0.38
2 - Roadway Paving	Sweepers/Scrubbers	1	8.00	64	0.46
2 - Roadway Paving	Tractors/Loaders/Backhoes	3	8.00	97	0.37
1 - Architectural Coating	Air Compressors	1	6.00	78	0.48
2 - Roadway Arch Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Phase 1 Minor Const. Utility Relocations	15	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Worker and General Delivery Trips	3	80.00	6.00	54.00	14.70	15.00	7.00	LD_Mix	HDT_Mix	HHDT
2 - Roadway Site Prep	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
1 - Grading	5	0.00	0.00	5,300.00	14.70	6.90	7.00	LD_Mix	HDT_Mix	HHDT
2 - Roadway Grading	16	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
1 - Building Construction	26	0.00	0.00	1,375.00	14.70	6.90	10.00	LD_Mix	HDT_Mix	HHDT
1 - Paving	6	0.00	0.00	1,594.00	14.70	6.90	22.00	LD_Mix	HDT_Mix	HHDT
2 - Roadway Paving	8	0.00	0.00	1,853.00	14.70	6.90	22.00	LD_Mix	HDT_Mix	HHDT
1 - Architectural Coating	1	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2 - Roadway Arch Coating	1	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Phase 1 Minor Const. Utility Relocations - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.5154	0.0000	5.5154	0.5955	0.0000	0.5955			0.0000			0.0000
Off-Road	5.1896	47.8492	49.4174	0.1145		1.8484	1.8484		1.7388	1.7388		11,003.9053	11,003.9053	2.7514		11,072.6895
Total	**5.1896**	**47.8492**	**49.4174**	**0.1145**	**5.5154**	**1.8484**	**7.3638**	**0.5955**	**1.7388**	**2.3344**		**11,003.9053**	**11,003.9053**	**2.7514**		**11,072.6895**

3.2 Phase 1 Minor Const. Utility Relocations - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4819	0.0000	2.4819	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	5.1896	47.8492	49.4174	0.1145		1.8484	1.8484		1.7388	1.7388	0.0000	11,003.9053	11,003.9053	2.7514		11,072.6895
Total	**5.1896**	**47.8492**	**49.4174**	**0.1145**	**2.4819**	**1.8484**	**4.3304**	**0.2680**	**1.7388**	**2.0068**	**0.0000**	**11,003.9053**	**11,003.9053**	**2.7514**		**11,072.6895**

3.2 Phase 1 Minor Const. Utility Relocations - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Phase 1 Minor Const. Utility Relocations - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.5154	0.0000	5.5154	0.5955	0.0000	0.5955			0.0000			0.0000
Off-Road	5.1896	47.8492	49.4174	0.1145		1.8484	1.8484		1.7388	1.7388		11,003.9053	11,003.9053	2.7514		11,072.6895
Total	**5.1896**	**47.8492**	**49.4174**	**0.1145**	**5.5154**	**1.8484**	**7.3638**	**0.5955**	**1.7388**	**2.3344**		**11,003.9053**	**11,003.9053**	**2.7514**		**11,072.6895**

3.2 Phase 1 Minor Const. Utility Relocations - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4819	0.0000	2.4819	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	5.1896	47.8492	49.4174	0.1145		1.8484	1.8484		1.7388	1.7388	0.0000	11,003.9053	11,003.9053	2.7514		11,072.6895
Total	**5.1896**	**47.8492**	**49.4174**	**0.1145**	**2.4819**	**1.8484**	**4.3304**	**0.2680**	**1.7388**	**2.0068**	**0.0000**	**11,003.9053**	**11,003.9053**	**2.7514**		**11,072.6895**

3.2 Phase 1 Minor Const. Utility Relocations - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Phase 1 Minor Const. Utility Relocations - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.5154	0.0000	5.5154	0.5955	0.0000	0.5955			0.0000			0.0000
Off-Road	5.1896	47.8492	49.4174	0.1145		1.8484	1.8484		1.7388	1.7388		11,003.9053	11,003.9053	2.7514		11,072.6895
Total	**5.1896**	**47.8492**	**49.4174**	**0.1145**	**5.5154**	**1.8484**	**7.3638**	**0.5955**	**1.7388**	**2.3344**		**11,003.9053**	**11,003.9053**	**2.7514**		**11,072.6895**

3.2 Phase 1 Minor Const. Utility Relocations - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4819	0.0000	2.4819	0.2680	0.0000	0.2680			0.0000			0.0000
Off-Road	5.1896	47.8492	49.4174	0.1145		1.8484	1.8484		1.7388	1.7388	0.0000	11,003.9053	11,003.9053	2.7514		11,072.6895
Total	**5.1896**	**47.8492**	**49.4174**	**0.1145**	**2.4819**	**1.8484**	**4.3304**	**0.2680**	**1.7388**	**2.0068**	**0.0000**	**11,003.9053**	**11,003.9053**	**2.7514**		**11,072.6895**

3.2 Phase 1 Minor Const. Utility Relocations - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.3 Worker and General Delivery Trips - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1721	1.0783	0.9031	2.0800e-003		0.0419	0.0419		0.0419	0.0419		147.9406	147.9406	0.0154		148.3246
Total	**0.1721**	**1.0783**	**0.9031**	**2.0800e-003**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**0.0419**	**0.0419**		**147.9406**	**147.9406**	**0.0154**		**148.3246**

3.3 Worker and General Delivery Trips - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0000e-005	3.8800e-003	1.3300e-003	1.0000e-005	1.6800e-003	0.0000	1.6900e-003	4.2000e-004	0.0000	4.2000e-004		1.3754	1.3754	1.5000e-004		1.3791
Vendor	0.0174	0.5034	0.2140	2.7000e-003	0.0832	9.2000e-004	0.0841	0.0239	8.8000e-004	0.0248		295.5150	295.5150	0.0199		296.0133
Worker	0.2252	0.1108	1.7259	6.9400e-003	0.8942	5.2500e-003	0.8995	0.2372	4.8300e-003	0.2420		692.2704	692.2704	0.0113		692.5539
Total	**0.2426**	**0.6181**	**1.9413**	**9.6500e-003**	**0.9790**	**6.1700e-003**	**0.9852**	**0.2615**	**5.7100e-003**	**0.2672**		**989.1608**	**989.1608**	**0.0314**		**989.9463**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1721	1.0783	0.9031	2.0800e-003		0.0419	0.0419		0.0419	0.0419	0.0000	147.9406	147.9406	0.0154		148.3246
Total	**0.1721**	**1.0783**	**0.9031**	**2.0800e-003**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**147.9406**	**147.9406**	**0.0154**		**148.3246**

3.3 Worker and General Delivery Trips - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0000e-005	3.8800e-003	1.3300e-003	1.0000e-005	1.6800e-003	0.0000	1.6900e-003	4.2000e-004	0.0000	4.2000e-004		1.3754	1.3754	1.5000e-004		1.3791
Vendor	0.0174	0.5034	0.2140	2.7000e-003	0.0832	9.2000e-004	0.0841	0.0239	8.8000e-004	0.0248		295.5150	295.5150	0.0199		296.0133
Worker	0.2252	0.1108	1.7259	6.9400e-003	0.8942	5.2500e-003	0.8995	0.2372	4.8300e-003	0.2420		692.2704	692.2704	0.0113		692.5539
Total	**0.2426**	**0.6181**	**1.9413**	**9.6500e-003**	**0.9790**	**6.1700e-003**	**0.9852**	**0.2615**	**5.7100e-003**	**0.2672**		**989.1608**	**989.1608**	**0.0314**		**989.9463**

3.3 Worker and General Delivery Trips - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1721	1.0783	0.9031	2.0800e-003		0.0419	0.0419		0.0419	0.0419		147.9406	147.9406	0.0154		148.3246
Total	**0.1721**	**1.0783**	**0.9031**	**2.0800e-003**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**0.0419**	**0.0419**		**147.9406**	**147.9406**	**0.0154**		**148.3246**

3.3 Worker and General Delivery Trips - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0000e-005	3.8100e-003	1.3500e-003	1.0000e-005	1.0200e-003	0.0000	1.0200e-003	2.6000e-004	0.0000	2.6000e-004		1.3660	1.3660	1.4000e-004		1.3697
Vendor	0.0171	0.4947	0.2134	2.6800e-003	0.0832	9.1000e-004	0.0841	0.0239	8.7000e-004	0.0248		294.0583	294.0583	0.0198		294.5536
Worker	0.2158	0.1027	1.6279	6.7100e-003	0.8942	4.9700e-003	0.8992	0.2372	4.5700e-003	0.2417		669.6714	669.6714	0.0105		669.9329
Total	**0.2330**	**0.6012**	**1.8426**	**9.4000e-003**	**0.9784**	**5.8800e-003**	**0.9843**	**0.2613**	**5.4400e-003**	**0.2668**		**965.0958**	**965.0958**	**0.0304**		**965.8561**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1721	1.0783	0.9031	2.0800e-003		0.0419	0.0419		0.0419	0.0419	0.0000	147.9406	147.9406	0.0154		148.3246
Total	**0.1721**	**1.0783**	**0.9031**	**2.0800e-003**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**147.9406**	**147.9406**	**0.0154**		**148.3246**

3.3 Worker and General Delivery Trips - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0000e-005	3.8100e-003	1.3500e-003	1.0000e-005	1.0200e-003	0.0000	1.0200e-003	2.6000e-004	0.0000	2.6000e-004		1.3660	1.3660	1.4000e-004		1.3697
Vendor	0.0171	0.4947	0.2134	2.6800e-003	0.0832	9.1000e-004	0.0841	0.0239	8.7000e-004	0.0248		294.0583	294.0583	0.0198		294.5536
Worker	0.2158	0.1027	1.6279	6.7100e-003	0.8942	4.9700e-003	0.8992	0.2372	4.5700e-003	0.2417		669.6714	669.6714	0.0105		669.9329
Total	**0.2330**	**0.6012**	**1.8426**	**9.4000e-003**	**0.9784**	**5.8800e-003**	**0.9843**	**0.2613**	**5.4400e-003**	**0.2668**		**965.0958**	**965.0958**	**0.0304**		**965.8561**

3.3 Worker and General Delivery Trips - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1721	1.0783	0.9031	2.0800e-003		0.0419	0.0419		0.0419	0.0419		147.9406	147.9406	0.0154		148.3246
Total	**0.1721**	**1.0783**	**0.9031**	**2.0800e-003**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**0.0419**	**0.0419**		**147.9406**	**147.9406**	**0.0154**		**148.3246**

3.3 Worker and General Delivery Trips - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0000e-005	3.7500e-003	1.3700e-003	1.0000e-005	1.0200e-003	0.0000	1.0300e-003	2.6000e-004	0.0000	2.6000e-004		1.3575	1.3575	1.4000e-004		1.3611
Vendor	0.0168	0.4877	0.2131	2.6700e-003	0.0832	8.9000e-004	0.0840	0.0239	8.5000e-004	0.0248		292.8294	292.8294	0.0197		293.3217
Worker	0.2060	0.0954	1.5413	6.5100e-003	0.8942	4.5900e-003	0.8988	0.2372	4.2200e-003	0.2414		650.0395	650.0395	9.6900e-003		650.2817
Total	**0.2229**	**0.5869**	**1.7558**	**9.1900e-003**	**0.9784**	**5.4800e-003**	**0.9839**	**0.2613**	**5.0700e-003**	**0.2664**		**944.2264**	**944.2264**	**0.0295**		**944.9645**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1721	1.0783	0.9031	2.0800e-003		0.0419	0.0419		0.0419	0.0419	0.0000	147.9406	147.9406	0.0154		148.3246
Total	**0.1721**	**1.0783**	**0.9031**	**2.0800e-003**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**147.9406**	**147.9406**	**0.0154**		**148.3246**

3.3 Worker and General Delivery Trips - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0000e-005	3.7500e-003	1.3700e-003	1.0000e-005	1.0200e-003	0.0000	1.0300e-003	2.6000e-004	0.0000	2.6000e-004		1.3575	1.3575	1.4000e-004		1.3611
Vendor	0.0168	0.4877	0.2131	2.6700e-003	0.0832	8.9000e-004	0.0840	0.0239	8.5000e-004	0.0248		292.8294	292.8294	0.0197		293.3217
Worker	0.2060	0.0954	1.5413	6.5100e-003	0.8942	4.5900e-003	0.8988	0.2372	4.2200e-003	0.2414		650.0395	650.0395	9.6900e-003		650.2817
Total	**0.2229**	**0.5869**	**1.7558**	**9.1900e-003**	**0.9784**	**5.4800e-003**	**0.9839**	**0.2613**	**5.0700e-003**	**0.2664**		**944.2264**	**944.2264**	**0.0295**		**944.9645**

3.3 Worker and General Delivery Trips - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1721	1.0783	0.9031	2.0800e-003		0.0419	0.0419		0.0419	0.0419		147.9406	147.9406	0.0154		148.3246
Total	**0.1721**	**1.0783**	**0.9031**	**2.0800e-003**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**0.0419**	**0.0419**		**147.9406**	**147.9406**	**0.0154**		**148.3246**

3.3 Worker and General Delivery Trips - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0000e-005	3.6900e-003	1.3800e-003	1.0000e-005	1.0200e-003	0.0000	1.0200e-003	2.6000e-004	0.0000	2.6000e-004		1.3498	1.3498	1.4000e-004		1.3533
Vendor	0.0166	0.4811	0.2127	2.6600e-003	0.0832	8.8000e-004	0.0840	0.0239	8.4000e-004	0.0248		291.6988	291.6988	0.0196		292.1885
Worker	0.1952	0.0887	1.4594	6.3400e-003	0.8942	4.2600e-003	0.8985	0.2372	3.9100e-003	0.2411		632.9051	632.9051	8.9600e-003		633.1292
Total	**0.2119**	**0.5735**	**1.6735**	**9.0100e-003**	**0.9784**	**5.1400e-003**	**0.9835**	**0.2613**	**4.7500e-003**	**0.2661**		**925.9537**	**925.9537**	**0.0287**		**926.6710**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1721	1.0783	0.9031	2.0800e-003		0.0419	0.0419		0.0419	0.0419	0.0000	147.9406	147.9406	0.0154		148.3246
Total	**0.1721**	**1.0783**	**0.9031**	**2.0800e-003**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**147.9406**	**147.9406**	**0.0154**		**148.3246**

3.3 Worker and General Delivery Trips - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0000e-005	3.6900e-003	1.3800e-003	1.0000e-005	1.0200e-003	0.0000	1.0200e-003	2.6000e-004	0.0000	2.6000e-004		1.3498	1.3498	1.4000e-004		1.3533
Vendor	0.0166	0.4811	0.2127	2.6600e-003	0.0832	8.8000e-004	0.0840	0.0239	8.4000e-004	0.0248		291.6988	291.6988	0.0196		292.1885
Worker	0.1952	0.0887	1.4594	6.3400e-003	0.8942	4.2600e-003	0.8985	0.2372	3.9100e-003	0.2411		632.9051	632.9051	8.9600e-003		633.1292
Total	**0.2119**	**0.5735**	**1.6735**	**9.0100e-003**	**0.9784**	**5.1400e-003**	**0.9835**	**0.2613**	**4.7500e-003**	**0.2661**		**925.9537**	**925.9537**	**0.0287**		**926.6710**

3.3 Worker and General Delivery Trips - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1721	1.0783	0.9033	2.0800e-003		0.0419	0.0419		0.0419	0.0419		147.9406	147.9406	0.0154		148.3246
Total	**0.1721**	**1.0783**	**0.9033**	**2.0800e-003**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**0.0419**	**0.0419**		**147.9406**	**147.9406**	**0.0154**		**148.3246**

3.3 Worker and General Delivery Trips - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0000e-005	3.6400e-003	1.3900e-003	1.0000e-005	1.0200e-003	0.0000	1.0200e-003	2.6000e-004	0.0000	2.6000e-004		1.3429	1.3429	1.4000e-004		1.3464
Vendor	0.0164	0.4747	0.2123	2.6500e-003	0.0832	8.7000e-004	0.0840	0.0239	8.3000e-004	0.0247		290.6463	290.6463	0.0195		291.1332
Worker	0.1839	0.0825	1.3837	6.1900e-003	0.8942	3.9600e-003	0.8982	0.2372	3.6400e-003	0.2408		617.9316	617.9316	8.3000e-003		618.1392
Total	**0.2004**	**0.5609**	**1.5973**	**8.8500e-003**	**0.9784**	**4.8300e-003**	**0.9832**	**0.2613**	**4.4700e-003**	**0.2658**		**909.9208**	**909.9208**	**0.0279**		**910.6188**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1721	1.0783	0.9033	2.0800e-003		0.0419	0.0419		0.0419	0.0419	0.0000	147.9406	147.9406	0.0154		148.3246
Total	**0.1721**	**1.0783**	**0.9033**	**2.0800e-003**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**147.9406**	**147.9406**	**0.0154**		**148.3246**

3.3 Worker and General Delivery Trips - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0000e-005	3.6400e-003	1.3900e-003	1.0000e-005	1.0200e-003	0.0000	1.0200e-003	2.6000e-004	0.0000	2.6000e-004		1.3429	1.3429	1.4000e-004		1.3464
Vendor	0.0164	0.4747	0.2123	2.6500e-003	0.0832	8.7000e-004	0.0840	0.0239	8.3000e-004	0.0247		290.6463	290.6463	0.0195		291.1332
Worker	0.1839	0.0825	1.3837	6.1900e-003	0.8942	3.9600e-003	0.8982	0.2372	3.6400e-003	0.2408		617.9316	617.9316	8.3000e-003		618.1392
Total	**0.2004**	**0.5609**	**1.5973**	**8.8500e-003**	**0.9784**	**4.8300e-003**	**0.9832**	**0.2613**	**4.4700e-003**	**0.2658**		**909.9208**	**909.9208**	**0.0279**		**910.6188**

3.3 Worker and General Delivery Trips - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1721	1.0783	0.9033	2.0800e-003		0.0419	0.0419		0.0419	0.0419		147.9406	147.9406	0.0154		148.3246
Total	**0.1721**	**1.0783**	**0.9033**	**2.0800e-003**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**0.0419**	**0.0419**		**147.9406**	**147.9406**	**0.0154**		**148.3246**

3.3 Worker and General Delivery Trips - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0000e-005	3.5900e-003	1.4100e-003	1.0000e-005	2.3700e-003	0.0000	2.3800e-003	5.9000e-004	0.0000	5.9000e-004		1.3374	1.3374	1.4000e-004		1.3409
Vendor	0.0162	0.4672	0.2123	2.6400e-003	0.0832	8.6000e-004	0.0840	0.0239	8.2000e-004	0.0247		289.8199	289.8199	0.0194		290.3050
Worker	0.1713	0.0765	1.3119	6.0400e-003	0.8942	3.6800e-003	0.8979	0.2372	3.3800e-003	0.2405		603.4377	603.4377	7.6500e-003		603.6290
Total	**0.1876**	**0.5473**	**1.5256**	**8.6900e-003**	**0.9797**	**4.5400e-003**	**0.9843**	**0.2617**	**4.2000e-003**	**0.2659**		**894.5949**	**894.5949**	**0.0272**		**895.2748**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.1721	1.0783	0.9033	2.0800e-003		0.0419	0.0419		0.0419	0.0419	0.0000	147.9406	147.9406	0.0154		148.3246
Total	**0.1721**	**1.0783**	**0.9033**	**2.0800e-003**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**0.0419**	**0.0419**	**0.0000**	**147.9406**	**147.9406**	**0.0154**		**148.3246**

3.3 Worker and General Delivery Trips - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0000e-005	3.5900e-003	1.4100e-003	1.0000e-005	2.3700e-003	0.0000	2.3800e-003	5.9000e-004	0.0000	5.9000e-004		1.3374	1.3374	1.4000e-004		1.3409
Vendor	0.0162	0.4672	0.2123	2.6400e-003	0.0832	8.6000e-004	0.0840	0.0239	8.2000e-004	0.0247		289.8199	289.8199	0.0194		290.3050
Worker	0.1713	0.0765	1.3119	6.0400e-003	0.8942	3.6800e-003	0.8979	0.2372	3.3800e-003	0.2405		603.4377	603.4377	7.6500e-003		603.6290
Total	**0.1876**	**0.5473**	**1.5256**	**8.6900e-003**	**0.9797**	**4.5400e-003**	**0.9843**	**0.2617**	**4.2000e-003**	**0.2659**		**894.5949**	**894.5949**	**0.0272**		**895.2748**

3.4 1 - Grading - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.1391	0.0000	7.1391	3.4333	0.0000	3.4333			0.0000			0.0000
Off-Road	1.8336	15.8982	14.8057	0.0399		0.6668	0.6668		0.6135	0.6135		3,865.5797	3,865.5797	1.2502		3,896.8349
Total	**1.8336**	**15.8982**	**14.8057**	**0.0399**	**7.1391**	**0.6668**	**7.8060**	**3.4333**	**0.6135**	**4.0468**		**3,865.5797**	**3,865.5797**	**1.2502**		**3,896.8349**

3.4 1 - Grading - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2119	9.0633	3.2991	0.0290	0.6106	0.0102	0.6208	0.1673	9.7100e-003	0.1770		3,280.6625	3,280.6625	0.3453		3,289.2959
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.2119**	**9.0633**	**3.2991**	**0.0290**	**0.6106**	**0.0102**	**0.6208**	**0.1673**	**9.7100e-003**	**0.1770**		**3,280.6625**	**3,280.6625**	**0.3453**		**3,289.2959**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.2126	0.0000	3.2126	1.5450	0.0000	1.5450			0.0000			0.0000
Off-Road	1.8336	15.8982	14.8057	0.0399		0.6668	0.6668		0.6135	0.6135	0.0000	3,865.5797	3,865.5797	1.2502		3,896.8349
Total	**1.8336**	**15.8982**	**14.8057**	**0.0399**	**3.2126**	**0.6668**	**3.8794**	**1.5450**	**0.6135**	**2.1585**	**0.0000**	**3,865.5797**	**3,865.5797**	**1.2502**		**3,896.8349**

3.4 1 - Grading - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2119	9.0633	3.2991	0.0290	0.6106	0.0102	0.6208	0.1673	9.7100e-003	0.1770		3,280.6625	3,280.6625	0.3453		3,289.2959
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.2119**	**9.0633**	**3.2991**	**0.0290**	**0.6106**	**0.0102**	**0.6208**	**0.1673**	**9.7100e-003**	**0.1770**		**3,280.6625**	**3,280.6625**	**0.3453**		**3,289.2959**

3.5 1 - Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	7.5660	69.4256	66.0329	0.1784		2.7283	2.7283		2.5145	2.5145		17,211.4707	17,211.4707	5.5081		17,349.1721
Total	**7.5660**	**69.4256**	**66.0329**	**0.1784**		**2.7283**	**2.7283**		**2.5145**	**2.5145**		**17,211.4707**	**17,211.4707**	**5.5081**		**17,349.1721**

3.5 1 - Building Construction - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0153	0.5791	0.2416	2.2000e-003	0.1040	8.0000e-004	0.1048	0.0270	7.7000e-004	0.0277		248.8797	248.8797	0.0263		249.5375
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0153**	**0.5791**	**0.2416**	**2.2000e-003**	**0.1040**	**8.0000e-004**	**0.1048**	**0.0270**	**7.7000e-004**	**0.0277**		**248.8797**	**248.8797**	**0.0263**		**249.5375**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	7.5660	69.4256	66.0329	0.1784		2.7283	2.7283		2.5145	2.5145	0.0000	17,211.4707	17,211.4707	5.5081		17,349.1721
Total	**7.5660**	**69.4256**	**66.0329**	**0.1784**		**2.7283**	**2.7283**		**2.5145**	**2.5145**	**0.0000**	**17,211.4707**	**17,211.4707**	**5.5081**		**17,349.1721**

3.5 1 - Building Construction - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0153	0.5791	0.2416	2.2000e-003	0.1040	8.0000e-004	0.1048	0.0270	7.7000e-004	0.0277		248.8797	248.8797	0.0263		249.5375
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0153**	**0.5791**	**0.2416**	**2.2000e-003**	**0.1040**	**8.0000e-004**	**0.1048**	**0.0270**	**7.7000e-004**	**0.0277**		**248.8797**	**248.8797**	**0.0263**		**249.5375**

3.5 1 - Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	7.5660	69.4256	66.0329	0.1784		2.7283	2.7283		2.5145	2.5145		17,211.4707	17,211.4707	5.5081		17,349.1721
Total	**7.5660**	**69.4256**	**66.0329**	**0.1784**		**2.7283**	**2.7283**		**2.5145**	**2.5145**		**17,211.4707**	**17,211.4707**	**5.5081**		**17,349.1721**

3.5 1 - Building Construction - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0152	0.5694	0.2440	2.1800e-003	0.0776	7.9000e-004	0.0783	0.0205	7.5000e-004	0.0212		247.5550	247.5550	0.0261		248.2083
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0152**	**0.5694**	**0.2440**	**2.1800e-003**	**0.0776**	**7.9000e-004**	**0.0783**	**0.0205**	**7.5000e-004**	**0.0212**		**247.5550**	**247.5550**	**0.0261**		**248.2083**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	7.5660	69.4256	66.0329	0.1784		2.7283	2.7283		2.5145	2.5145	0.0000	17,211.4707	17,211.4707	5.5081		17,349.1721
Total	**7.5660**	**69.4256**	**66.0329**	**0.1784**		**2.7283**	**2.7283**		**2.5145**	**2.5145**	**0.0000**	**17,211.4707**	**17,211.4707**	**5.5081**		**17,349.1721**

3.5 1 - Building Construction - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0152	0.5694	0.2440	2.1800e-003	0.0776	7.9000e-004	0.0783	0.0205	7.5000e-004	0.0212		247.5550	247.5550	0.0261		248.2083
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0152**	**0.5694**	**0.2440**	**2.1800e-003**	**0.0776**	**7.9000e-004**	**0.0783**	**0.0205**	**7.5000e-004**	**0.0212**		**247.5550**	**247.5550**	**0.0261**		**248.2083**

3.6 2 - Roadway Site Prep - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7079	6.4010	8.6225	0.0182		0.2743	0.2743		0.2523	0.2523		1,758.9442	1,758.9442	0.5689		1,773.1662
Total	**0.7079**	**6.4010**	**8.6225**	**0.0182**	**0.5303**	**0.2743**	**0.8045**	**0.0573**	**0.2523**	**0.3096**		**1,758.9442**	**1,758.9442**	**0.5689**		**1,773.1662**

3.6 2 - Roadway Site Prep - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2386	0.0000	0.2386	0.0258	0.0000	0.0258			0.0000			0.0000
Off-Road	0.7079	6.4010	8.6225	0.0182		0.2743	0.2743		0.2523	0.2523	0.0000	1,758.9442	1,758.9442	0.5689		1,773.1662
Total	**0.7079**	**6.4010**	**8.6225**	**0.0182**	**0.2386**	**0.2743**	**0.5129**	**0.0258**	**0.2523**	**0.2781**	**0.0000**	**1,758.9442**	**1,758.9442**	**0.5689**		**1,773.1662**

3.6 2 - Roadway Site Prep - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.7 1 - Paving - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8792	8.4239	13.6508	0.0202		0.4004	0.4004		0.3683	0.3683		1,953.6607	1,953.6607	0.6319		1,969.4570
Paving	0.4554					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3346**	**8.4239**	**13.6508**	**0.0202**		**0.4004**	**0.4004**		**0.3683**	**0.3683**		**1,953.6607**	**1,953.6607**	**0.6319**		**1,969.4570**

3.7 1 - Paving - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0658	1.8821	1.0778	0.0102	0.2654	3.9500e-003	0.2693	0.0727	3.7800e-003	0.0764		1,161.0908	1,161.0908	0.1238		1,164.1850
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0658**	**1.8821**	**1.0778**	**0.0102**	**0.2654**	**3.9500e-003**	**0.2693**	**0.0727**	**3.7800e-003**	**0.0764**		**1,161.0908**	**1,161.0908**	**0.1238**		**1,164.1850**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8792	8.4239	13.6508	0.0202		0.4004	0.4004		0.3683	0.3683	0.0000	1,953.6607	1,953.6607	0.6319		1,969.4570
Paving	0.4554					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3346**	**8.4239**	**13.6508**	**0.0202**		**0.4004**	**0.4004**		**0.3683**	**0.3683**	**0.0000**	**1,953.6607**	**1,953.6607**	**0.6319**		**1,969.4570**

3.7 1 - Paving - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0658	1.8821	1.0778	0.0102	0.2654	3.9500e-003	0.2693	0.0727	3.7800e-003	0.0764		1,161.0908	1,161.0908	0.1238		1,164.1850
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0658**	**1.8821**	**1.0778**	**0.0102**	**0.2654**	**3.9500e-003**	**0.2693**	**0.0727**	**3.7800e-003**	**0.0764**		**1,161.0908**	**1,161.0908**	**0.1238**		**1,164.1850**

3.8 2 - Roadway Grading - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.6962	0.0000	3.6962	0.3991	0.0000	0.3991			0.0000			0.0000
Off-Road	4.3494	40.2287	43.1004	0.1041		1.5846	1.5846		1.4578	1.4578		10,077.7001	10,077.7001	3.2593		10,159.1834
Total	**4.3494**	**40.2287**	**43.1004**	**0.1041**	**3.6962**	**1.5846**	**5.2808**	**0.3991**	**1.4578**	**1.8569**		**10,077.7001**	**10,077.7001**	**3.2593**		**10,159.1834**

3.8 2 - Roadway Grading - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.6633	0.0000	1.6633	0.1796	0.0000	0.1796			0.0000			0.0000
Off-Road	4.3494	40.2287	43.1004	0.1041		1.5846	1.5846		1.4578	1.4578	0.0000	10,077.7001	10,077.7001	3.2593		10,159.1834
Total	**4.3494**	**40.2287**	**43.1004**	**0.1041**	**1.6633**	**1.5846**	**3.2479**	**0.1796**	**1.4578**	**1.6374**	**0.0000**	**10,077.7001**	**10,077.7001**	**3.2593**		**10,159.1834**

3.8 2 - Roadway Grading - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.8 2 - Roadway Grading - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.6962	0.0000	3.6962	0.3991	0.0000	0.3991			0.0000			0.0000
Off-Road	5.1534	20.1418	40.8072	0.1188		0.6717	0.6717		0.6717	0.6717		12,099.2592	12,099.2592	0.4558		12,110.6530
Total	**5.1534**	**20.1418**	**40.8072**	**0.1188**	**3.6962**	**0.6717**	**4.3679**	**0.3991**	**0.6717**	**1.0708**		**12,099.2592**	**12,099.2592**	**0.4558**		**12,110.6530**

3.8 2 - Roadway Grading - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.6633	0.0000	1.6633	0.1796	0.0000	0.1796			0.0000			0.0000
Off-Road	5.1534	20.1418	40.8072	0.1188		0.6717	0.6717		0.6717	0.6717	0.0000	12,099.2592	12,099.2592	0.4558		12,110.6530
Total	**5.1534**	**20.1418**	**40.8072**	**0.1188**	**1.6633**	**0.6717**	**2.3350**	**0.1796**	**0.6717**	**0.8513**	**0.0000**	**12,099.2592**	**12,099.2592**	**0.4558**		**12,110.6530**

3.8 2 - Roadway Grading - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.9 1 - Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.1057					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**2.2766**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.9 1 - Architectural Coating - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.1057					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**2.2766**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.9 1 - Architectural Coating - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.9 1 - Architectural Coating - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.1057					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**2.2365**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.9 1 - Architectural Coating - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.1057					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**2.2365**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.9 1 - Architectural Coating - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.10 2 - Roadway Paving - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5046	8.5042	18.8343	0.0318		0.2696	0.2696		0.2696	0.2696		3,007.2243	3,007.2243	0.1343		3,010.5808
Paving	0.4554					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9600**	**8.5042**	**18.8343**	**0.0318**		**0.2696**	**0.2696**		**0.2696**	**0.2696**		**3,007.2243**	**3,007.2243**	**0.1343**		**3,010.5808**

3.10 2 - Roadway Paving - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0759	2.1435	1.2605	0.0118	0.3085	4.5000e-003	0.3130	0.0845	4.3100e-003	0.0888		1,343.6821	1,343.6821	0.1433		1,347.2658
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0759**	**2.1435**	**1.2605**	**0.0118**	**0.3085**	**4.5000e-003**	**0.3130**	**0.0845**	**4.3100e-003**	**0.0888**		**1,343.6821**	**1,343.6821**	**0.1433**		**1,347.2658**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5046	8.5042	18.8343	0.0318		0.2696	0.2696		0.2696	0.2696	0.0000	3,007.2243	3,007.2243	0.1343		3,010.5808
Paving	0.4554					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.9600**	**8.5042**	**18.8343**	**0.0318**		**0.2696**	**0.2696**		**0.2696**	**0.2696**	**0.0000**	**3,007.2243**	**3,007.2243**	**0.1343**		**3,010.5808**

3.10 2 - Roadway Paving - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0759	2.1435	1.2605	0.0118	0.3085	4.5000e-003	0.3130	0.0845	4.3100e-003	0.0888		1,343.6821	1,343.6821	0.1433		1,347.2658
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0759**	**2.1435**	**1.2605**	**0.0118**	**0.3085**	**4.5000e-003**	**0.3130**	**0.0845**	**4.3100e-003**	**0.0888**		**1,343.6821**	**1,343.6821**	**0.1433**		**1,347.2658**

3.11 2 - Roadway Arch Coating - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.1057					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**2.2365**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.11 2 - Roadway Arch Coating - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.1057					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**2.2365**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.11 2 - Roadway Arch Coating - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.11 2 - Roadway Arch Coating - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.1057					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**2.2365**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.11 2 - Roadway Arch Coating - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.1057					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**2.2365**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

3.11 2 - Roadway Arch Coating - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.570439	0.042308	0.209216	0.102853	0.012546	0.005789	0.027115	0.020014	0.001894	0.001437	0.004997	0.000631	0.000762

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3750	2.0000e-005	2.0300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3700e-003	4.3700e-003	1.0000e-005		4.6600e-003
Unmitigated	0.3750	2.0000e-005	2.0300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3700e-003	4.3700e-003	1.0000e-005		4.6600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0664					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3084					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.9000e-004	2.0000e-005	2.0300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3700e-003	4.3700e-003	1.0000e-005		4.6600e-003
Total	**0.3750**	**2.0000e-005**	**2.0300e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**4.3700e-003**	**4.3700e-003**	**1.0000e-005**		**4.6600e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0664					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3084					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.9000e-004	2.0000e-005	2.0300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3700e-003	4.3700e-003	1.0000e-005		4.6600e-003
Total	**0.3750**	**2.0000e-005**	**2.0300e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**4.3700e-003**	**4.3700e-003**	**1.0000e-005**		**4.6600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

On-Site Emissions (includes implementation of SCAQMD Rule 403)

Phase	Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Phase 1 Minor Const. Utility Relocations	2026	5.1896	47.8492	49.4174	0.1145	2.4819	1.8484	4.3304	0.268	1.7388	2.0068
Phase 1 Minor Const. Utility Relocations	2027	5.1896	47.8492	49.4174	0.1145	2.4819	1.8484	4.3304	0.268	1.7388	2.0068
Phase 1 Minor Const. Utility Relocations	2028	5.1896	47.8492	49.4174	0.1145	2.4819	1.8484	4.3304	0.268	1.7388	2.0068
Worker and General Delivery Trips	2026	0.1721	1.0783	0.9031	2.08E-03	0	0.0419	0.0419	0	0.0419	0.0419
Worker and General Delivery Trips	2027	0.1721	1.0783	0.9031	2.08E-03	0	0.0419	0.0419	0	0.0419	0.0419
Worker and General Delivery Trips	2028	0.1721	1.0783	0.9031	2.08E-03	0	0.0419	0.0419	0	0.0419	0.0419
Worker and General Delivery Trips	2029	0.1721	1.0783	0.9031	2.08E-03	0	0.0419	0.0419	0	0.0419	0.0419
Worker and General Delivery Trips	2030	0.1721	1.0783	0.9033	2.08E-03	0	0.0419	0.0419	0	0.0419	0.0419
Worker and General Delivery Trips	2031	0.1721	1.0783	0.9033	2.08E-03	0	0.0419	0.0419	0	0.0419	0.0419
Grading	2028	1.8336	15.8982	14.8057	0.0399	3.2126	0.6668	3.8794	1.545	0.6135	2.1585
Building Construction	2028	7.566	69.4256	66.0329	0.1784	0	2.7283	2.7283	0	2.5145	2.5145
Building Construction	2029	7.566	69.4256	66.0329	0.1784	0	2.7283	2.7283	0	2.5145	2.5145
Roadway Site Prep	2029	0.7079	6.401	8.6225	0.0182	0.2386	0.2743	0.5129	0.0258	0.2523	0.2781
Roadway Grading	2029	4.3494	40.2287	43.1004	0.1041	1.6633	1.5846	3.2479	0.1796	1.4578	1.6374
Roadway Grading	2030	5.1534	20.1418	40.8072	0.1188	1.6633	0.6717	2.335	0.1796	0.6717	0.8513
Paving	2029	1.3346	8.4239	13.6508	0.0202	0	0.4004	0.4004	0	0.3683	0.3683
Architectural Coating	2029	2.2766	1.1455	1.8091	2.97E-03	0	0.0515	0.0515	0	0.0515	0.0515
Architectural Coating	2030	2.2365	0.8563	1.7977	2.97E-03	0	0.0203	0.0203	0	0.0203	0.0203
Roadway Paving	2030	1.96	8.5042	18.8343	0.0318	0	0.2696	0.2696	0	0.2696	0.2696
Roadway Arch Coating	2030	2.2365	0.8563	1.7977	2.97E-03	0	0.0203	0.0203	0	0.0203	0.0203
Roadway Arch Coating	2031	2.2365	0.8563	1.7977	2.97E-03	0	0.0203	0.0203	0	0.0203	0.0203

Overlapping Phases	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Phase 1 Minor (2026), Worker (2026)	5.3617	48.9275	50.3205	0.1166	2.4819	1.8903	4.3723	0.2680	1.7807	2.0487
Phase 1 Minor (2027), Worker (2027)	5.3617	48.9275	50.3205	0.1166	2.4819	1.8903	4.3723	0.2680	1.7807	2.0487
Phase 1 Minor (2028), Worker (2028)	5.3617	48.9275	50.3205	0.1166	2.4819	1.8903	4.3723	0.2680	1.7807	2.0487
Worker (2028), 1-Grading (2028)	2.0057	16.9765	15.7088	0.0420	3.2126	0.7087	3.9213	1.5450	0.6554	2.2004
Worker (2028), 1-Building Construction (2028)	7.7381	70.5039	66.9360	0.1805	0.0000	2.7702	2.7702	0.0000	2.5564	2.5564
Worker (2029), 1-Building Construction (2029), Roadway Site Prep (2029)	8.4460	76.9049	75.5585	0.1987	0.2386	3.0445	3.2831	0.0258	2.8087	2.8345
Worker (2029), 1-Paving (2029), Roadway Site Prep (2029)	2.2146	15.9032	23.1764	0.0405	0.2386	0.7166	0.9552	0.0258	0.6625	0.6883
Worker (2029), 1-Paving (2029), Roadway Grading (2029)	5.8561	49.7309	57.6543	0.1264	1.6633	2.0269	3.6902	0.1796	1.8680	2.0476
Worker (2029), 1-Arch Coating (2029), Roadway Grading (2029)	6.7981	42.4525	45.8126	0.1092	1.6633	1.6780	3.3413	0.1796	1.5512	1.7308
Worker (2030), 1-Arch Coating (2030), Roadway Grading (2030)	7.5620	22.0764	43.5082	0.1239	1.6633	0.7339	2.3972	0.1796	0.7339	0.9135
Worker (2030), Roadway Paving (2030)	2.1321	9.5825	19.7376	0.0339	0.0000	0.3115	0.3115	0.0000	0.3115	0.3115
Worker (2030), Roadway Arch Coating (2030)	2.4086	1.9346	2.7010	0.0051	0.0000	0.0622	0.0622	0.0000	0.0622	0.0622
Worker (2031), Roadway Arch Coating (2031)	2.4086	1.9346	2.7010	0.0051	0.0000	0.0622	0.0622	0.0000	0.0622	0.0622
Maximum Daily Localized Emissions	8.4460	76.9049	75.5585	0.1987	3.2126	3.0445	4.3723	1.5450	2.8087	2.8345
SCAQMD Localized Thresholds	-	221	1311	-	-	-	11	-	-	6
Exceeds Threshold?	-	No	No	-	-	-	No	-	-	No

Brea Boulevard Corridor Improvement Project

Orange County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	19.99	Acre	19.99	870,764.40	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2032
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Based on project acreage which includes permanent disturbance area, existing roadway, and proposed open graded asphalt concrete area.

Construction Phase - Overall construction schedule based on project specific duration. Subphase durations scaled based on CalEEMod and SMAQMD Road Construction Model. Daily worker and general delivery trips modeled as separate phase to avoid overlap.

Off-road Equipment -

Off-road Equipment - Based on project specific equipment and SMAQMD defaults in Roadway Construction Model. Off-highway truck = truck crane

Off-road Equipment - Based on project specific equipment and SMAQMD defaults in Roadway Construction Model. Off-highway truck = water truck.

Off-road Equipment - Based on project specific equipment and SMAQMD defaults in Roadway Construction Model

Off-road Equipment -

Off-road Equipment - Based on project specific equipment and SMAQMD defaults in Roadway Construction Model. Off-highway truck = water truck.

Off-road Equipment - Based on project specific equipment and SMAQMD defaults in Roadway Construction Model

Off-road Equipment - Based on project specific equipment and SMAQMD defaults in Roadway Construction Model

Off-road Equipment - Based on project specific equipment and SMAQMD defaults in Roadway Construction Model

Off-road Equipment - Based on project specific equipment and SMAQMD defaults in Roadway Construction Model.

Trips and VMT - Based on project specific quantities and trip lengths. Assumes average 40 workers daily. Roadway paving trips includes additional trips for additional milling removal for OGAC element.

Grading - Accounts for material export and base import. Concrete, asphalt, waste, and millings quantities calculated in trip screen.

Construction Off-road Equipment Mitigation - Assumes implemenation of SCAQMD fugitive dust control regulations.

Architectural Coating -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Fleet Mix -

Area Coating -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	115.00

tblConstructionPhase	NumDays	20.00	115.00
tblConstructionPhase	NumDays	300.00	238.00
tblConstructionPhase	NumDays	30.00	53.00
tblConstructionPhase	NumDays	30.00	238.00
tblConstructionPhase	NumDays	20.00	115.00
tblConstructionPhase	NumDays	20.00	115.00
tblConstructionPhase	NumDays	10.00	523.00
tblConstructionPhase	NumDays	10.00	1,305.00
tblConstructionPhase	NumDays	10.00	53.00
tblGrading	AcresOfGrading	26.50	53.00
tblGrading	AcresOfGrading	833.00	829.50
tblGrading	AcresOfGrading	2,615.00	2,720.00
tblGrading	MaterialExported	0.00	20,000.00
tblGrading	MaterialImported	0.00	6,500.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
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tblOffRoadEquipment	PhaseName		1 - Building Construction
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tblOffRoadEquipment	PhaseName		1 - Building Construction
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tblOffRoadEquipment	PhaseName		1 - Building Construction
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tblOffRoadEquipment	PhaseName		1 - Paving
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tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
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tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
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tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	7.00
tblTripsAndVMT	HaulingTripLength	20.00	7.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripLength	20.00	22.00
tblTripsAndVMT	HaulingTripLength	20.00	22.00
tblTripsAndVMT	HaulingTripNumber	0.00	54.00
tblTripsAndVMT	HaulingTripNumber	3,313.00	5,300.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,375.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,594.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,853.00
tblTripsAndVMT	VendorTripLength	6.90	15.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	143.00	0.00
tblTripsAndVMT	WorkerTripNumber	38.00	0.00
tblTripsAndVMT	WorkerTripNumber	73.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	80.00
tblTripsAndVMT	WorkerTripNumber	13.00	0.00

tblTripsAndVMT	WorkerTripNumber	366.00	0.00
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	40.00	0.00
tblTripsAndVMT	WorkerTripNumber	73.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2026	0.4319	3.8169	4.0168	9.6900e-003	1.5163	0.1460	1.6624	0.1755	0.1376	0.3131	0.0000	846.0955	846.0955	0.1954	0.0000	850.9814
2027	0.7308	6.4665	6.7954	0.0164	1.5677	0.2475	1.8152	0.1893	0.2331	0.4224	0.0000	1,431.2241	1,431.2241	0.3311	0.0000	1,439.5020
2028	0.7619	6.9315	6.7667	0.0184	1.7774	0.2590	2.0364	0.2858	0.2410	0.5269	0.0000	1,619.2975	1,619.2975	0.4271	0.0000	1,629.9739
2029	0.9003	7.8434	8.1481	0.0214	0.5996	0.3050	0.9046	0.0881	0.2813	0.3694	0.0000	1,882.5038	1,882.5038	0.5537	0.0000	1,896.3455
2030	0.6531	2.2806	4.4117	0.0123	0.5827	0.0697	0.6525	0.0858	0.0697	0.1555	0.0000	1,126.3009	1,126.3009	0.0490	0.0000	1,127.5246
2031	0.1404	0.1350	0.2241	7.3000e-004	0.0520	3.6100e-003	0.0556	0.0139	3.5900e-003	0.0175	0.0000	63.6304	63.6304	2.6300e-003	0.0000	63.6963
Maximum	**0.9003**	**7.8434**	**8.1481**	**0.0214**	**1.7774**	**0.3050**	**2.0364**	**0.2858**	**0.2813**	**0.5269**	**0.0000**	**1,882.5038**	**1,882.5038**	**0.5537**	**0.0000**	**1,896.3455**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2026	0.4319	3.8169	4.0168	9.6900e-003	0.7231	0.1460	0.8691	0.0899	0.1376	0.2274	0.0000	846.0946	846.0946	0.1954	0.0000	850.9805
2027	0.7308	6.4665	6.7954	0.0164	0.7745	0.2475	1.0219	0.1036	0.2331	0.3367	0.0000	1,431.2226	1,431.2226	0.3311	0.0000	1,439.5004
2028	0.7619	6.9315	6.7667	0.0184	0.8801	0.2590	1.1391	0.1501	0.2410	0.3912	0.0000	1,619.2958	1,619.2958	0.4271	0.0000	1,629.9722
2029	0.9003	7.8434	8.1480	0.0214	0.3500	0.3050	0.6550	0.0611	0.2813	0.3425	0.0000	1,882.5018	1,882.5018	0.5537	0.0000	1,896.3434
2030	0.6531	2.2806	4.4117	0.0123	0.3408	0.0697	0.4105	0.0597	0.0697	0.1294	0.0000	1,126.2998	1,126.2998	0.0489	0.0000	1,127.5234
2031	0.1404	0.1350	0.2241	7.3000e-004	0.0520	3.6100e-003	0.0556	0.0139	3.5900e-003	0.0175	0.0000	63.6304	63.6304	2.6300e-003	0.0000	63.6962
Maximum	**0.9003**	**7.8434**	**8.1480**	**0.0214**	**0.8801**	**0.3050**	**1.1391**	**0.1501**	**0.2813**	**0.3912**	**0.0000**	**1,882.5018**	**1,882.5018**	**0.5537**	**0.0000**	**1,896.3434**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**48.81**	**0.00**	**41.75**	**42.94**	**0.00**	**19.95**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**6-1-2026**	**8-31-2026**	1.8121	1.8121
2	**9-1-2026**	**11-30-2026**	1.7934	1.7934
3	**12-1-2026**	**2-28-2027**	1.7736	1.7736
4	**3-1-2027**	**5-31-2027**	1.8117	1.8117
5	**6-1-2027**	**8-31-2027**	1.8112	1.8112

6	**9-1-2027**	**11-30-2027**	1.7925	1.7925
7	**12-1-2027**	**2-29-2028**	1.7924	1.7924
8	**3-1-2028**	**5-31-2028**	1.8109	1.8109
9	**6-1-2028**	**8-31-2028**	1.2621	1.2621
10	**9-1-2028**	**11-30-2028**	2.5894	2.5894
11	**12-1-2028**	**2-28-2029**	2.5606	2.5606
12	**3-1-2029**	**5-31-2029**	2.6162	2.6162
13	**6-1-2029**	**8-31-2029**	1.9006	1.9006
14	**9-1-2029**	**11-30-2029**	1.8966	1.8966
15	**12-1-2029**	**2-28-2030**	1.2551	1.2551
16	**3-1-2030**	**5-31-2030**	0.9982	0.9982
17	**6-1-2030**	**8-31-2030**	0.6720	0.6720
18	**9-1-2030**	**11-30-2030**	0.4788	0.4788
19	**12-1-2030**	**2-28-2031**	0.2333	0.2333
20	**3-1-2031**	**5-31-2031**	0.1654	0.1654
		Highest	2.6162	2.6162

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0684	0.0000	2.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0684**	**0.0000**	**2.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**5.0000e-004**	**5.0000e-004**	**0.0000**	**0.0000**	**5.3000e-004**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0684	0.0000	2.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0684**	**0.0000**	**2.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**5.0000e-004**	**5.0000e-004**	**0.0000**	**0.0000**	**5.3000e-004**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Phase 1 Minor Const. Utility Relocations	Site Preparation	6/1/2026	5/31/2028	5	523	
2	Worker and General Delivery Trips	Site Preparation	6/1/2026	5/30/2031	5	1305	
3	1 - Grading	Grading	6/1/2028	8/14/2028	5	53	
4	1 - Building Construction	Building Construction	8/15/2028	7/12/2029	5	238	
5	2 - Roadway Site Prep	Site Preparation	6/1/2029	8/14/2029	5	53	
6	1 - Paving	Paving	7/13/2029	12/20/2029	5	115	
7	2 - Roadway Grading	Grading	8/15/2029	7/12/2030	5	238	
8	1 - Architectural Coating	Architectural Coating	12/21/2029	5/30/2030	5	115	
9	2 - Roadway Paving	Paving	7/13/2030	12/20/2030	5	115	
10	2 - Roadway Arch Coating	Architectural Coating	12/21/2030	5/30/2031	5	115	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 19.99

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 52,246 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Phase 1 Minor Const. Utility Relocations	Air Compressors	1	8.00	78	0.48
Phase 1 Minor Const. Utility Relocations	Concrete/Industrial Saws	1	8.00	81	0.73
Phase 1 Minor Const. Utility Relocations	Crushing/Proc. Equipment	1	8.00	85	0.78
Phase 1 Minor Const. Utility Relocations	Generator Sets	1	8.00	84	0.74
Phase 1 Minor Const. Utility Relocations	Graders	2	8.00	187	0.41

Phase 1 Minor Const. Utility Relocations	Plate Compactors	1	8.00	8	0.43
Phase 1 Minor Const. Utility Relocations	Pumps	1	8.00	84	0.74
Phase 1 Minor Const. Utility Relocations	Rough Terrain Forklifts	1	8.00	100	0.40
Phase 1 Minor Const. Utility Relocations	Rubber Tired Dozers	0	0.00	247	0.40
Phase 1 Minor Const. Utility Relocations	Scrapers	4	8.00	367	0.48
Phase 1 Minor Const. Utility Relocations	Signal Boards	0	0.00	6	0.82
Phase 1 Minor Const. Utility Relocations	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Phase 1 Minor Const. Utility Relocations	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Worker and General Delivery Trips	Rubber Tired Dozers	0	0.00	247	0.40
Worker and General Delivery Trips	Signal Boards	3	8.00	6	0.82
Worker and General Delivery Trips	Tractors/Loaders/Backhoes	0	0.00	97	0.37
2 - Roadway Site Prep	Crawler Tractors	1	8.00	212	0.43
2 - Roadway Site Prep	Excavators	2	8.00	158	0.38
2 - Roadway Site Prep	Rubber Tired Dozers	0	0.00	247	0.40
2 - Roadway Site Prep	Tractors/Loaders/Backhoes	0	0.00	97	0.37
1 - Grading	Crawler Tractors	1	8.00	212	0.43
1 - Grading	Excavators	2	8.00	158	0.38
1 - Grading	Graders	0	0.00	187	0.41
1 - Grading	Off-Highway Trucks	1	8.00	402	0.38
1 - Grading	Rubber Tired Dozers	1	8.00	247	0.40
1 - Grading	Signal Boards	0	0.00	6	0.82
1 - Grading	Tractors/Loaders/Backhoes	0	0.00	97	0.37
2 - Roadway Grading	Crawler Tractors	1	8.00	212	0.43
2 - Roadway Grading	Excavators	3	8.00	158	0.38
2 - Roadway Grading	Graders	2	8.00	187	0.41

2 - Roadway Grading	Off-Highway Trucks	1	8.00	402	0.38
2 - Roadway Grading	Rollers	2	8.00	80	0.38
2 - Roadway Grading	Rubber Tired Dozers	0	8.00	247	0.40
2 - Roadway Grading	Rubber Tired Loaders	1	8.00	203	0.36
2 - Roadway Grading	Scrapers	2	8.00	367	0.48
2 - Roadway Grading	Tractors/Loaders/Backhoes	4	8.00	97	0.37
1 - Building Construction	Bore/Drill Rigs	1	8.00	221	0.50
1 - Building Construction	Cement and Mortar Mixers	1	8.00	9	0.56
1 - Building Construction	Cranes	2	7.00	231	0.29
1 - Building Construction	Crawler Tractors	2	8.00	212	0.43
1 - Building Construction	Excavators	4	8.00	158	0.38
1 - Building Construction	Forklifts	0	0.00	89	0.20
1 - Building Construction	Generator Sets	0	0.00	84	0.74
1 - Building Construction	Graders	2	8.00	187	0.41
1 - Building Construction	Off-Highway Trucks	1	8.00	402	0.38
1 - Building Construction	Rollers	3	8.00	80	0.38
1 - Building Construction	Rubber Tired Loaders	3	8.00	203	0.36
1 - Building Construction	Scrapers	4	8.00	367	0.48
1 - Building Construction	Tractors/Loaders/Backhoes	2	7.00	97	0.37
1 - Building Construction	Welders	1	8.00	46	0.45
1 - Paving	Pavers	1	8.00	130	0.42
1 - Paving	Paving Equipment	1	8.00	132	0.36
1 - Paving	Rollers	1	8.00	80	0.38
1 - Paving	Sweepers/Scrubbers	1	8.00	64	0.46
1 - Paving	Tractors/Loaders/Backhoes	2	8.00	97	0.37
2 - Roadway Paving	Pavers	1	8.00	130	0.42
2 - Roadway Paving	Paving Equipment	1	8.00	132	0.36

2 - Roadway Paving	Rollers	2	8.00	80	0.38
2 - Roadway Paving	Sweepers/Scrubbers	1	8.00	64	0.46
2 - Roadway Paving	Tractors/Loaders/Backhoes	3	8.00	97	0.37
1 - Architectural Coating	Air Compressors	1	6.00	78	0.48
2 - Roadway Arch Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Phase 1 Minor Const. Utility Relocations	15	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Worker and General Delivery Trips	3	80.00	6.00	54.00	14.70	15.00	7.00	LD_Mix	HDT_Mix	HHDT
2 - Roadway Site Prep	3	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
1 - Grading	5	0.00	0.00	5,300.00	14.70	6.90	7.00	LD_Mix	HDT_Mix	HHDT
2 - Roadway Grading	16	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
1 - Building Construction	26	0.00	0.00	1,375.00	14.70	6.90	10.00	LD_Mix	HDT_Mix	HHDT
1 - Paving	6	0.00	0.00	1,594.00	14.70	6.90	22.00	LD_Mix	HDT_Mix	HHDT
2 - Roadway Paving	8	0.00	0.00	1,853.00	14.70	6.90	22.00	LD_Mix	HDT_Mix	HHDT
1 - Architectural Coating	1	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
2 - Roadway Arch Coating	1	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Phase 1 Minor Const. Utility Relocations - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.4423	0.0000	1.4423	0.1557	0.0000	0.1557	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3996	3.6844	3.8051	8.8100e-003		0.1423	0.1423		0.1339	0.1339	0.0000	768.6583	768.6583	0.1922	0.0000	773.4631
Total	**0.3996**	**3.6844**	**3.8051**	**8.8100e-003**	**1.4423**	**0.1423**	**1.5846**	**0.1557**	**0.1339**	**0.2896**	**0.0000**	**768.6583**	**768.6583**	**0.1922**	**0.0000**	**773.4631**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Phase 1 Minor Const. Utility Relocations - 2026

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6490	0.0000	0.6490	0.0701	0.0000	0.0701	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3996	3.6844	3.8051	8.8100e-003		0.1423	0.1423		0.1339	0.1339	0.0000	768.6574	768.6574	0.1922	0.0000	773.4622
Total	**0.3996**	**3.6844**	**3.8051**	**8.8100e-003**	**0.6490**	**0.1423**	**0.7914**	**0.0701**	**0.1339**	**0.2040**	**0.0000**	**768.6574**	**768.6574**	**0.1922**	**0.0000**	**773.4622**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Phase 1 Minor Const. Utility Relocations - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.4423	0.0000	1.4423	0.1557	0.0000	0.1557	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.6772	6.2443	6.4490	0.0149		0.2412	0.2412		0.2269	0.2269	0.0000	1,302.7260	1,302.7260	0.3257	0.0000	1,310.8692
Total	**0.6772**	**6.2443**	**6.4490**	**0.0149**	**1.4423**	**0.2412**	**1.6835**	**0.1557**	**0.2269**	**0.3827**	**0.0000**	**1,302.7260**	**1,302.7260**	**0.3257**	**0.0000**	**1,310.8692**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Phase 1 Minor Const. Utility Relocations - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6490	0.0000	0.6490	0.0701	0.0000	0.0701	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.6772	6.2443	6.4490	0.0149		0.2412	0.2412		0.2269	0.2269	0.0000	1,302.7245	1,302.7245	0.3257	0.0000	1,310.8677
Total	**0.6772**	**6.2443**	**6.4490**	**0.0149**	**0.6490**	**0.2412**	**0.8903**	**0.0701**	**0.2269**	**0.2970**	**0.0000**	**1,302.7245**	**1,302.7245**	**0.3257**	**0.0000**	**1,310.8677**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Phase 1 Minor Const. Utility Relocations - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.4423	0.0000	1.4423	0.1557	0.0000	0.1557	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2802	2.5839	2.6685	6.1800e-003		0.0998	0.0998		0.0939	0.0939	0.0000	539.0591	539.0591	0.1348	0.0000	542.4287
Total	**0.2802**	**2.5839**	**2.6685**	**6.1800e-003**	**1.4423**	**0.0998**	**1.5421**	**0.1557**	**0.0939**	**0.2496**	**0.0000**	**539.0591**	**539.0591**	**0.1348**	**0.0000**	**542.4287**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Phase 1 Minor Const. Utility Relocations - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6490	0.0000	0.6490	0.0701	0.0000	0.0701	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2802	2.5839	2.6685	6.1800e-003		0.0998	0.0998		0.0939	0.0939	0.0000	539.0584	539.0584	0.1348	0.0000	542.4280
Total	**0.2802**	**2.5839**	**2.6685**	**6.1800e-003**	**0.6490**	**0.0998**	**0.7488**	**0.0701**	**0.0939**	**0.1640**	**0.0000**	**539.0584**	**539.0584**	**0.1348**	**0.0000**	**542.4280**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Worker and General Delivery Trips - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.0830	0.0695	1.6000e-004		3.2300e-003	3.2300e-003		3.2300e-003	3.2300e-003	0.0000	10.3341	10.3341	1.0700e-003	0.0000	10.3610
Total	**0.0133**	**0.0830**	**0.0695**	**1.6000e-004**	**0.0000**	**3.2300e-003**	**3.2300e-003**	**0.0000**	**3.2300e-003**	**3.2300e-003**	**0.0000**	**10.3341**	**10.3341**	**1.0700e-003**	**0.0000**	**10.3610**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	3.0000e-004	1.1000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0947	0.0947	1.0000e-005	0.0000	0.0949
Vendor	1.3600e-003	0.0395	0.0169	2.1000e-004	6.3100e-003	7.0000e-005	6.3800e-003	1.8200e-003	7.0000e-005	1.8900e-003	0.0000	20.5368	20.5368	1.4000e-003	0.0000	20.5719
Worker	0.0177	9.6200e-003	0.1252	5.1000e-004	0.0676	4.0000e-004	0.0680	0.0180	3.7000e-004	0.0183	0.0000	46.4717	46.4717	7.6000e-004	0.0000	46.4906
Total	**0.0191**	**0.0495**	**0.1421**	**7.2000e-004**	**0.0741**	**4.7000e-004**	**0.0745**	**0.0198**	**4.4000e-004**	**0.0203**	**0.0000**	**67.1031**	**67.1031**	**2.1700e-003**	**0.0000**	**67.1574**

3.3 Worker and General Delivery Trips - 2026

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.0830	0.0695	1.6000e-004		3.2300e-003	3.2300e-003		3.2300e-003	3.2300e-003	0.0000	10.3341	10.3341	1.0700e-003	0.0000	10.3609
Total	**0.0133**	**0.0830**	**0.0695**	**1.6000e-004**	**0.0000**	**3.2300e-003**	**3.2300e-003**	**0.0000**	**3.2300e-003**	**3.2300e-003**	**0.0000**	**10.3341**	**10.3341**	**1.0700e-003**	**0.0000**	**10.3609**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	3.0000e-004	1.1000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0947	0.0947	1.0000e-005	0.0000	0.0949
Vendor	1.3600e-003	0.0395	0.0169	2.1000e-004	6.3100e-003	7.0000e-005	6.3800e-003	1.8200e-003	7.0000e-005	1.8900e-003	0.0000	20.5368	20.5368	1.4000e-003	0.0000	20.5719
Worker	0.0177	9.6200e-003	0.1252	5.1000e-004	0.0676	4.0000e-004	0.0680	0.0180	3.7000e-004	0.0183	0.0000	46.4717	46.4717	7.6000e-004	0.0000	46.4906
Total	**0.0191**	**0.0495**	**0.1421**	**7.2000e-004**	**0.0741**	**4.7000e-004**	**0.0745**	**0.0198**	**4.4000e-004**	**0.0203**	**0.0000**	**67.1031**	**67.1031**	**2.1700e-003**	**0.0000**	**67.1574**

3.3 Worker and General Delivery Trips - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0225	0.1407	0.1179	2.7000e-004		5.4700e-003	5.4700e-003		5.4700e-003	5.4700e-003	0.0000	17.5143	17.5143	1.8200e-003	0.0000	17.5598
Total	**0.0225**	**0.1407**	**0.1179**	**2.7000e-004**	**0.0000**	**5.4700e-003**	**5.4700e-003**	**0.0000**	**5.4700e-003**	**5.4700e-003**	**0.0000**	**17.5143**	**17.5143**	**1.8200e-003**	**0.0000**	**17.5598**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	5.0000e-004	1.8000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1594	0.1594	2.0000e-005	0.0000	0.1598
Vendor	2.2600e-003	0.0658	0.0285	3.5000e-004	0.0107	1.2000e-004	0.0108	3.0800e-003	1.1000e-004	3.1900e-003	0.0000	34.6354	34.6354	2.3600e-003	0.0000	34.6945
Worker	0.0288	0.0151	0.1999	8.4000e-004	0.1146	6.5000e-004	0.1153	0.0304	6.0000e-004	0.0310	0.0000	76.1890	76.1890	1.1900e-003	0.0000	76.2187
Total	**0.0311**	**0.0814**	**0.2286**	**1.1900e-003**	**0.1254**	**7.7000e-004**	**0.1262**	**0.0336**	**7.1000e-004**	**0.0343**	**0.0000**	**110.9838**	**110.9838**	**3.5700e-003**	**0.0000**	**111.0729**

3.3 Worker and General Delivery Trips - 2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0225	0.1407	0.1179	2.7000e-004		5.4700e-003	5.4700e-003		5.4700e-003	5.4700e-003	0.0000	17.5143	17.5143	1.8200e-003	0.0000	17.5598
Total	**0.0225**	**0.1407**	**0.1179**	**2.7000e-004**	**0.0000**	**5.4700e-003**	**5.4700e-003**	**0.0000**	**5.4700e-003**	**5.4700e-003**	**0.0000**	**17.5143**	**17.5143**	**1.8200e-003**	**0.0000**	**17.5598**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	5.0000e-004	1.8000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1594	0.1594	2.0000e-005	0.0000	0.1598
Vendor	2.2600e-003	0.0658	0.0285	3.5000e-004	0.0107	1.2000e-004	0.0108	3.0800e-003	1.1000e-004	3.1900e-003	0.0000	34.6354	34.6354	2.3600e-003	0.0000	34.6945
Worker	0.0288	0.0151	0.1999	8.4000e-004	0.1146	6.5000e-004	0.1153	0.0304	6.0000e-004	0.0310	0.0000	76.1890	76.1890	1.1900e-003	0.0000	76.2187
Total	**0.0311**	**0.0814**	**0.2286**	**1.1900e-003**	**0.1254**	**7.7000e-004**	**0.1262**	**0.0336**	**7.1000e-004**	**0.0343**	**0.0000**	**110.9838**	**110.9838**	**3.5700e-003**	**0.0000**	**111.0729**

3.3 Worker and General Delivery Trips - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0224	0.1402	0.1174	2.7000e-004		5.4500e-003	5.4500e-003		5.4500e-003	5.4500e-003	0.0000	17.4472	17.4472	1.8100e-003	0.0000	17.4925
Total	**0.0224**	**0.1402**	**0.1174**	**2.7000e-004**	**0.0000**	**5.4500e-003**	**5.4500e-003**	**0.0000**	**5.4500e-003**	**5.4500e-003**	**0.0000**	**17.4472**	**17.4472**	**1.8100e-003**	**0.0000**	**17.4925**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	4.9000e-004	1.8000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1578	0.1578	2.0000e-005	0.0000	0.1582
Vendor	2.2200e-003	0.0646	0.0283	3.5000e-004	0.0107	1.2000e-004	0.0108	3.0700e-003	1.1000e-004	3.1800e-003	0.0000	34.3597	34.3597	2.3400e-003	0.0000	34.4182
Worker	0.0274	0.0140	0.1885	8.1000e-004	0.1142	6.0000e-004	0.1148	0.0303	5.5000e-004	0.0309	0.0000	73.6709	73.6709	1.0900e-003	0.0000	73.6982
Total	**0.0296**	**0.0791**	**0.2170**	**1.1600e-003**	**0.1250**	**7.2000e-004**	**0.1257**	**0.0334**	**6.6000e-004**	**0.0341**	**0.0000**	**108.1884**	**108.1884**	**3.4500e-003**	**0.0000**	**108.2747**

3.3 Worker and General Delivery Trips - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0224	0.1402	0.1174	2.7000e-004		5.4500e-003	5.4500e-003		5.4500e-003	5.4500e-003	0.0000	17.4472	17.4472	1.8100e-003	0.0000	17.4925
Total	**0.0224**	**0.1402**	**0.1174**	**2.7000e-004**	**0.0000**	**5.4500e-003**	**5.4500e-003**	**0.0000**	**5.4500e-003**	**5.4500e-003**	**0.0000**	**17.4472**	**17.4472**	**1.8100e-003**	**0.0000**	**17.4925**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	4.9000e-004	1.8000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1578	0.1578	2.0000e-005	0.0000	0.1582
Vendor	2.2200e-003	0.0646	0.0283	3.5000e-004	0.0107	1.2000e-004	0.0108	3.0700e-003	1.1000e-004	3.1800e-003	0.0000	34.3597	34.3597	2.3400e-003	0.0000	34.4182
Worker	0.0274	0.0140	0.1885	8.1000e-004	0.1142	6.0000e-004	0.1148	0.0303	5.5000e-004	0.0309	0.0000	73.6709	73.6709	1.0900e-003	0.0000	73.6982
Total	**0.0296**	**0.0791**	**0.2170**	**1.1600e-003**	**0.1250**	**7.2000e-004**	**0.1257**	**0.0334**	**6.6000e-004**	**0.0341**	**0.0000**	**108.1884**	**108.1884**	**3.4500e-003**	**0.0000**	**108.2747**

3.3 Worker and General Delivery Trips - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0225	0.1407	0.1179	2.7000e-004		5.4700e-003	5.4700e-003		5.4700e-003	5.4700e-003	0.0000	17.5143	17.5143	1.8200e-003	0.0000	17.5598
Total	**0.0225**	**0.1407**	**0.1179**	**2.7000e-004**	**0.0000**	**5.4700e-003**	**5.4700e-003**	**0.0000**	**5.4700e-003**	**5.4700e-003**	**0.0000**	**17.5143**	**17.5143**	**1.8200e-003**	**0.0000**	**17.5598**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	4.8000e-004	1.9000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1575	0.1575	2.0000e-005	0.0000	0.1579
Vendor	2.2000e-003	0.0640	0.0284	3.5000e-004	0.0107	1.2000e-004	0.0108	3.0800e-003	1.1000e-004	3.1900e-003	0.0000	34.3597	34.3597	2.3400e-003	0.0000	34.4181
Worker	0.0261	0.0131	0.1790	7.9000e-004	0.1146	5.6000e-004	0.1152	0.0304	5.1000e-004	0.0310	0.0000	72.0028	72.0028	1.0200e-003	0.0000	72.0282
Total	**0.0283**	**0.0775**	**0.2076**	**1.1400e-003**	**0.1254**	**6.8000e-004**	**0.1261**	**0.0336**	**6.2000e-004**	**0.0342**	**0.0000**	**106.5200**	**106.5200**	**3.3800e-003**	**0.0000**	**106.6042**

3.3 Worker and General Delivery Trips - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0225	0.1407	0.1179	2.7000e-004		5.4700e-003	5.4700e-003		5.4700e-003	5.4700e-003	0.0000	17.5143	17.5143	1.8200e-003	0.0000	17.5598
Total	**0.0225**	**0.1407**	**0.1179**	**2.7000e-004**	**0.0000**	**5.4700e-003**	**5.4700e-003**	**0.0000**	**5.4700e-003**	**5.4700e-003**	**0.0000**	**17.5143**	**17.5143**	**1.8200e-003**	**0.0000**	**17.5598**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	4.8000e-004	1.9000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1575	0.1575	2.0000e-005	0.0000	0.1579
Vendor	2.2000e-003	0.0640	0.0284	3.5000e-004	0.0107	1.2000e-004	0.0108	3.0800e-003	1.1000e-004	3.1900e-003	0.0000	34.3597	34.3597	2.3400e-003	0.0000	34.4181
Worker	0.0261	0.0131	0.1790	7.9000e-004	0.1146	5.6000e-004	0.1152	0.0304	5.1000e-004	0.0310	0.0000	72.0028	72.0028	1.0200e-003	0.0000	72.0282
Total	**0.0283**	**0.0775**	**0.2076**	**1.1400e-003**	**0.1254**	**6.8000e-004**	**0.1261**	**0.0336**	**6.2000e-004**	**0.0342**	**0.0000**	**106.5200**	**106.5200**	**3.3800e-003**	**0.0000**	**106.6042**

3.3 Worker and General Delivery Trips - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0225	0.1407	0.1179	2.7000e-004		5.4700e-003	5.4700e-003		5.4700e-003	5.4700e-003	0.0000	17.5143	17.5143	1.8200e-003	0.0000	17.5598
Total	**0.0225**	**0.1407**	**0.1179**	**2.7000e-004**	**0.0000**	**5.4700e-003**	**5.4700e-003**	**0.0000**	**5.4700e-003**	**5.4700e-003**	**0.0000**	**17.5143**	**17.5143**	**1.8200e-003**	**0.0000**	**17.5598**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	4.8000e-004	1.9000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1567	0.1567	2.0000e-005	0.0000	0.1571
Vendor	2.1700e-003	0.0631	0.0283	3.4000e-004	0.0107	1.1000e-004	0.0108	3.0800e-003	1.1000e-004	3.1900e-003	0.0000	34.2364	34.2364	2.3200e-003	0.0000	34.2945
Worker	0.0246	0.0121	0.1696	7.8000e-004	0.1146	5.2000e-004	0.1151	0.0304	4.7000e-004	0.0309	0.0000	70.2968	70.2968	9.4000e-004	0.0000	70.3203
Total	**0.0268**	**0.0758**	**0.1981**	**1.1200e-003**	**0.1254**	**6.3000e-004**	**0.1261**	**0.0336**	**5.8000e-004**	**0.0341**	**0.0000**	**104.6899**	**104.6899**	**3.2800e-003**	**0.0000**	**104.7719**

3.3 Worker and General Delivery Trips - 2030

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0225	0.1407	0.1179	2.7000e-004		5.4700e-003	5.4700e-003		5.4700e-003	5.4700e-003	0.0000	17.5143	17.5143	1.8200e-003	0.0000	17.5598
Total	**0.0225**	**0.1407**	**0.1179**	**2.7000e-004**	**0.0000**	**5.4700e-003**	**5.4700e-003**	**0.0000**	**5.4700e-003**	**5.4700e-003**	**0.0000**	**17.5143**	**17.5143**	**1.8200e-003**	**0.0000**	**17.5598**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	4.8000e-004	1.9000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1567	0.1567	2.0000e-005	0.0000	0.1571
Vendor	2.1700e-003	0.0631	0.0283	3.4000e-004	0.0107	1.1000e-004	0.0108	3.0800e-003	1.1000e-004	3.1900e-003	0.0000	34.2364	34.2364	2.3200e-003	0.0000	34.2945
Worker	0.0246	0.0121	0.1696	7.8000e-004	0.1146	5.2000e-004	0.1151	0.0304	4.7000e-004	0.0309	0.0000	70.2968	70.2968	9.4000e-004	0.0000	70.3203
Total	**0.0268**	**0.0758**	**0.1981**	**1.1200e-003**	**0.1254**	**6.3000e-004**	**0.1261**	**0.0336**	**5.8000e-004**	**0.0341**	**0.0000**	**104.6899**	**104.6899**	**3.2800e-003**	**0.0000**	**104.7719**

3.3 Worker and General Delivery Trips - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2900e-003	0.0582	0.0488	1.1000e-004		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	7.2473	7.2473	7.5000e-004	0.0000	7.2661
Total	**9.2900e-003**	**0.0582**	**0.0488**	**1.1000e-004**	**0.0000**	**2.2600e-003**	**2.2600e-003**	**0.0000**	**2.2600e-003**	**2.2600e-003**	**0.0000**	**7.2473**	**7.2473**	**7.5000e-004**	**0.0000**	**7.2661**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.9000e-004	8.0000e-005	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0646	0.0646	1.0000e-005	0.0000	0.0648
Vendor	8.9000e-004	0.0257	0.0117	1.4000e-004	4.4200e-003	5.0000e-005	4.4700e-003	1.2700e-003	4.0000e-005	1.3200e-003	0.0000	14.1267	14.1267	9.6000e-004	0.0000	14.1506
Worker	9.4900e-003	4.6600e-003	0.0665	3.1000e-004	0.0474	2.0000e-004	0.0476	0.0126	1.8000e-004	0.0128	0.0000	28.4043	28.4043	3.6000e-004	0.0000	28.4132
Total	**0.0104**	**0.0306**	**0.0783**	**4.5000e-004**	**0.0520**	**2.5000e-004**	**0.0522**	**0.0139**	**2.2000e-004**	**0.0141**	**0.0000**	**42.5955**	**42.5955**	**1.3300e-003**	**0.0000**	**42.6286**

3.3 Worker and General Delivery Trips - 2031

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2900e-003	0.0582	0.0488	1.1000e-004		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	7.2473	7.2473	7.5000e-004	0.0000	7.2661
Total	**9.2900e-003**	**0.0582**	**0.0488**	**1.1000e-004**	**0.0000**	**2.2600e-003**	**2.2600e-003**	**0.0000**	**2.2600e-003**	**2.2600e-003**	**0.0000**	**7.2473**	**7.2473**	**7.5000e-004**	**0.0000**	**7.2661**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.9000e-004	8.0000e-005	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0646	0.0646	1.0000e-005	0.0000	0.0648
Vendor	8.9000e-004	0.0257	0.0117	1.4000e-004	4.4200e-003	5.0000e-005	4.4700e-003	1.2700e-003	4.0000e-005	1.3200e-003	0.0000	14.1267	14.1267	9.6000e-004	0.0000	14.1506
Worker	9.4900e-003	4.6600e-003	0.0665	3.1000e-004	0.0474	2.0000e-004	0.0476	0.0126	1.8000e-004	0.0128	0.0000	28.4043	28.4043	3.6000e-004	0.0000	28.4132
Total	**0.0104**	**0.0306**	**0.0783**	**4.5000e-004**	**0.0520**	**2.5000e-004**	**0.0522**	**0.0139**	**2.2000e-004**	**0.0141**	**0.0000**	**42.5955**	**42.5955**	**1.3300e-003**	**0.0000**	**42.6286**

3.4 1 - Grading - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1892	0.0000	0.1892	0.0910	0.0000	0.0910	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0486	0.4213	0.3924	1.0600e-003		0.0177	0.0177		0.0163	0.0163	0.0000	92.9301	92.9301	0.0301	0.0000	93.6815
Total	**0.0486**	**0.4213**	**0.3924**	**1.0600e-003**	**0.1892**	**0.0177**	**0.2069**	**0.0910**	**0.0163**	**0.1072**	**0.0000**	**92.9301**	**92.9301**	**0.0301**	**0.0000**	**93.6815**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.7400e-003	0.2415	0.0906	7.6000e-004	0.0159	2.7000e-004	0.0162	4.3700e-003	2.6000e-004	4.6300e-003	0.0000	77.7276	77.7276	8.4200e-003	0.0000	77.9380
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.7400e-003**	**0.2415**	**0.0906**	**7.6000e-004**	**0.0159**	**2.7000e-004**	**0.0162**	**4.3700e-003**	**2.6000e-004**	**4.6300e-003**	**0.0000**	**77.7276**	**77.7276**	**8.4200e-003**	**0.0000**	**77.9380**

3.4 1 - Grading - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0851	0.0000	0.0851	0.0409	0.0000	0.0409	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0486	0.4213	0.3924	1.0600e-003		0.0177	0.0177		0.0163	0.0163	0.0000	92.9300	92.9300	0.0301	0.0000	93.6813
Total	**0.0486**	**0.4213**	**0.3924**	**1.0600e-003**	**0.0851**	**0.0177**	**0.1028**	**0.0409**	**0.0163**	**0.0572**	**0.0000**	**92.9300**	**92.9300**	**0.0301**	**0.0000**	**93.6813**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.7400e-003	0.2415	0.0906	7.6000e-004	0.0159	2.7000e-004	0.0162	4.3700e-003	2.6000e-004	4.6300e-003	0.0000	77.7276	77.7276	8.4200e-003	0.0000	77.9380
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.7400e-003**	**0.2415**	**0.0906**	**7.6000e-004**	**0.0159**	**2.7000e-004**	**0.0162**	**4.3700e-003**	**2.6000e-004**	**4.6300e-003**	**0.0000**	**77.7276**	**77.7276**	**8.4200e-003**	**0.0000**	**77.9380**

3.5 1 - Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3745	3.4366	3.2686	8.8300e-003		0.1351	0.1351		0.1245	0.1245	0.0000	772.8922	772.8922	0.2473	0.0000	779.0758
Total	**0.3745**	**3.4366**	**3.2686**	**8.8300e-003**		**0.1351**	**0.1351**		**0.1245**	**0.1245**	**0.0000**	**772.8922**	**772.8922**	**0.2473**	**0.0000**	**779.0758**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.7000e-004	0.0290	0.0123	1.1000e-004	5.0500e-003	4.0000e-005	5.0900e-003	1.3100e-003	4.0000e-005	1.3500e-003	0.0000	11.0530	11.0530	1.1900e-003	0.0000	11.0828
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.7000e-004**	**0.0290**	**0.0123**	**1.1000e-004**	**5.0500e-003**	**4.0000e-005**	**5.0900e-003**	**1.3100e-003**	**4.0000e-005**	**1.3500e-003**	**0.0000**	**11.0530**	**11.0530**	**1.1900e-003**	**0.0000**	**11.0828**

3.5 1 - Building Construction - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3745	3.4366	3.2686	8.8300e-003		0.1351	0.1351		0.1245	0.1245	0.0000	772.8913	772.8913	0.2473	0.0000	779.0748
Total	**0.3745**	**3.4366**	**3.2686**	**8.8300e-003**		**0.1351**	**0.1351**		**0.1245**	**0.1245**	**0.0000**	**772.8913**	**772.8913**	**0.2473**	**0.0000**	**779.0748**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.7000e-004	0.0290	0.0123	1.1000e-004	5.0500e-003	4.0000e-005	5.0900e-003	1.3100e-003	4.0000e-005	1.3500e-003	0.0000	11.0530	11.0530	1.1900e-003	0.0000	11.0828
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.7000e-004**	**0.0290**	**0.0123**	**1.1000e-004**	**5.0500e-003**	**4.0000e-005**	**5.0900e-003**	**1.3100e-003**	**4.0000e-005**	**1.3500e-003**	**0.0000**	**11.0530**	**11.0530**	**1.1900e-003**	**0.0000**	**11.0828**

3.5 1 - Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5258	4.8251	4.5893	0.0124		0.1896	0.1896		0.1748	0.1748	0.0000	1,085.1719	1,085.1719	0.3473	0.0000	1,093.8538
Total	**0.5258**	**4.8251**	**4.5893**	**0.0124**		**0.1896**	**0.1896**		**0.1748**	**0.1748**	**0.0000**	**1,085.1719**	**1,085.1719**	**0.3473**	**0.0000**	**1,093.8538**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0700e-003	0.0400	0.0174	1.5000e-004	5.3000e-003	6.0000e-005	5.3500e-003	1.4000e-003	5.0000e-005	1.4500e-003	0.0000	15.4371	15.4371	1.6600e-003	0.0000	15.4787
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.0700e-003**	**0.0400**	**0.0174**	**1.5000e-004**	**5.3000e-003**	**6.0000e-005**	**5.3500e-003**	**1.4000e-003**	**5.0000e-005**	**1.4500e-003**	**0.0000**	**15.4371**	**15.4371**	**1.6600e-003**	**0.0000**	**15.4787**

3.5 1 - Building Construction - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.5258	4.8251	4.5893	0.0124		0.1896	0.1896		0.1748	0.1748	0.0000	1,085.1706	1,085.1706	0.3473	0.0000	1,093.8525
Total	**0.5258**	**4.8251**	**4.5893**	**0.0124**		**0.1896**	**0.1896**		**0.1748**	**0.1748**	**0.0000**	**1,085.1706**	**1,085.1706**	**0.3473**	**0.0000**	**1,093.8525**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0700e-003	0.0400	0.0174	1.5000e-004	5.3000e-003	6.0000e-005	5.3500e-003	1.4000e-003	5.0000e-005	1.4500e-003	0.0000	15.4371	15.4371	1.6600e-003	0.0000	15.4787
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.0700e-003**	**0.0400**	**0.0174**	**1.5000e-004**	**5.3000e-003**	**6.0000e-005**	**5.3500e-003**	**1.4000e-003**	**5.0000e-005**	**1.4500e-003**	**0.0000**	**15.4371**	**15.4371**	**1.6600e-003**	**0.0000**	**15.4787**

3.6 2 - Roadway Site Prep - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0141	0.0000	0.0141	1.5200e-003	0.0000	1.5200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0188	0.1696	0.2285	4.8000e-004		7.2700e-003	7.2700e-003		6.6900e-003	6.6900e-003	0.0000	42.2857	42.2857	0.0137	0.0000	42.6276
Total	**0.0188**	**0.1696**	**0.2285**	**4.8000e-004**	**0.0141**	**7.2700e-003**	**0.0213**	**1.5200e-003**	**6.6900e-003**	**8.2100e-003**	**0.0000**	**42.2857**	**42.2857**	**0.0137**	**0.0000**	**42.6276**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 2 - Roadway Site Prep - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.3200e-003	0.0000	6.3200e-003	6.8000e-004	0.0000	6.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0188	0.1696	0.2285	4.8000e-004		7.2700e-003	7.2700e-003		6.6900e-003	6.6900e-003	0.0000	42.2857	42.2857	0.0137	0.0000	42.6276
Total	**0.0188**	**0.1696**	**0.2285**	**4.8000e-004**	**6.3200e-003**	**7.2700e-003**	**0.0136**	**6.8000e-004**	**6.6900e-003**	**7.3700e-003**	**0.0000**	**42.2857**	**42.2857**	**0.0137**	**0.0000**	**42.6276**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 1 - Paving - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0506	0.4844	0.7849	1.1600e-003		0.0230	0.0230		0.0212	0.0212	0.0000	101.9090	101.9090	0.0330	0.0000	102.7330
Paving	0.0262					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0768**	**0.4844**	**0.7849**	**1.1600e-003**		**0.0230**	**0.0230**		**0.0212**	**0.0212**	**0.0000**	**101.9090**	**101.9090**	**0.0330**	**0.0000**	**102.7330**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.8200e-003	0.1108	0.0627	5.9000e-004	0.0150	2.3000e-004	0.0153	4.1200e-003	2.2000e-004	4.3400e-003	0.0000	60.2265	60.2265	6.4900e-003	0.0000	60.3887
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.8200e-003**	**0.1108**	**0.0627**	**5.9000e-004**	**0.0150**	**2.3000e-004**	**0.0153**	**4.1200e-003**	**2.2000e-004**	**4.3400e-003**	**0.0000**	**60.2265**	**60.2265**	**6.4900e-003**	**0.0000**	**60.3887**

3.7 1 - Paving - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0506	0.4844	0.7849	1.1600e-003		0.0230	0.0230		0.0212	0.0212	0.0000	101.9089	101.9089	0.0330	0.0000	102.7329
Paving	0.0262					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0768**	**0.4844**	**0.7849**	**1.1600e-003**		**0.0230**	**0.0230**		**0.0212**	**0.0212**	**0.0000**	**101.9089**	**101.9089**	**0.0330**	**0.0000**	**102.7329**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.8200e-003	0.1108	0.0627	5.9000e-004	0.0150	2.3000e-004	0.0153	4.1200e-003	2.2000e-004	4.3400e-003	0.0000	60.2265	60.2265	6.4900e-003	0.0000	60.3887
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.8200e-003**	**0.1108**	**0.0627**	**5.9000e-004**	**0.0150**	**2.3000e-004**	**0.0153**	**4.1200e-003**	**2.2000e-004**	**4.3400e-003**	**0.0000**	**60.2265**	**60.2265**	**6.4900e-003**	**0.0000**	**60.3887**

3.8 2 - Roadway Grading - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4398	0.0000	0.4398	0.0475	0.0000	0.0475	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2153	1.9913	2.1335	5.1500e-003		0.0784	0.0784		0.0722	0.0722	0.0000	452.5456	452.5456	0.1464	0.0000	456.2047
Total	**0.2153**	**1.9913**	**2.1335**	**5.1500e-003**	**0.4398**	**0.0784**	**0.5183**	**0.0475**	**0.0722**	**0.1197**	**0.0000**	**452.5456**	**452.5456**	**0.1464**	**0.0000**	**456.2047**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.8 2 - Roadway Grading - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1979	0.0000	0.1979	0.0214	0.0000	0.0214	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2153	1.9913	2.1335	5.1500e-003		0.0784	0.0784		0.0722	0.0722	0.0000	452.5451	452.5451	0.1464	0.0000	456.2041
Total	**0.2153**	**1.9913**	**2.1335**	**5.1500e-003**	**0.1979**	**0.0784**	**0.2764**	**0.0214**	**0.0722**	**0.0935**	**0.0000**	**452.5451**	**452.5451**	**0.1464**	**0.0000**	**456.2041**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.8 2 - Roadway Grading - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4398	0.0000	0.4398	0.0475	0.0000	0.0475	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3582	1.3999	2.8361	8.2600e-003		0.0467	0.0467		0.0467	0.0467	0.0000	762.8503	762.8503	0.0287	0.0000	763.5687
Total	**0.3582**	**1.3999**	**2.8361**	**8.2600e-003**	**0.4398**	**0.0467**	**0.4865**	**0.0475**	**0.0467**	**0.0942**	**0.0000**	**762.8503**	**762.8503**	**0.0287**	**0.0000**	**763.5687**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.8 2 - Roadway Grading - 2030

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1979	0.0000	0.1979	0.0214	0.0000	0.0214	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3582	1.3999	2.8361	8.2600e-003		0.0467	0.0467		0.0467	0.0467	0.0000	762.8494	762.8494	0.0287	0.0000	763.5678
Total	**0.3582**	**1.3999**	**2.8361**	**8.2600e-003**	**0.1979**	**0.0467**	**0.2446**	**0.0214**	**0.0467**	**0.0681**	**0.0000**	**762.8494**	**762.8494**	**0.0287**	**0.0000**	**763.5678**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.9 1 - Architectural Coating - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	7.3700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.0000e-004	4.0100e-003	6.3300e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	0.8936	0.8936	5.0000e-005	0.0000	0.8949
Total	**7.9700e-003**	**4.0100e-003**	**6.3300e-003**	**1.0000e-005**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**	**0.0000**	**0.8936**	**0.8936**	**5.0000e-005**	**0.0000**	**0.8949**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.9 1 - Architectural Coating - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	7.3700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.0000e-004	4.0100e-003	6.3300e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	0.8936	0.8936	5.0000e-005	0.0000	0.8949
Total	**7.9700e-003**	**4.0100e-003**	**6.3300e-003**	**1.0000e-005**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**	**0.0000**	**0.8936**	**0.8936**	**5.0000e-005**	**0.0000**	**0.8949**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.9 1 - Architectural Coating - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.0600e-003	0.0462	0.0971	1.6000e-004		1.1000e-003	1.1000e-003		1.1000e-003	1.1000e-003	0.0000	13.7876	13.7876	5.6000e-004	0.0000	13.8015
Total	**0.1208**	**0.0462**	**0.0971**	**1.6000e-004**		**1.1000e-003**	**1.1000e-003**		**1.1000e-003**	**1.1000e-003**	**0.0000**	**13.7876**	**13.7876**	**5.6000e-004**	**0.0000**	**13.8015**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.9 1 - Architectural Coating - 2030

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.0600e-003	0.0462	0.0971	1.6000e-004		1.1000e-003	1.1000e-003		1.1000e-003	1.1000e-003	0.0000	13.7876	13.7876	5.6000e-004	0.0000	13.8015
Total	**0.1208**	**0.0462**	**0.0971**	**1.6000e-004**		**1.1000e-003**	**1.1000e-003**		**1.1000e-003**	**1.1000e-003**	**0.0000**	**13.7876**	**13.7876**	**5.6000e-004**	**0.0000**	**13.8015**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.10 2 - Roadway Paving - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0865	0.4890	1.0830	1.8300e-003		0.0155	0.0155		0.0155	0.0155	0.0000	156.8662	156.8662	7.0000e-003	0.0000	157.0413
Paving	0.0262					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1127**	**0.4890**	**1.0830**	**1.8300e-003**		**0.0155**	**0.0155**		**0.0155**	**0.0155**	**0.0000**	**156.8662**	**156.8662**	**7.0000e-003**	**0.0000**	**157.0413**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.4000e-003	0.1261	0.0733	6.8000e-004	0.0175	2.6000e-004	0.0177	4.7900e-003	2.5000e-004	5.0400e-003	0.0000	69.6990	69.6990	7.5100e-003	0.0000	69.8869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.4000e-003**	**0.1261**	**0.0733**	**6.8000e-004**	**0.0175**	**2.6000e-004**	**0.0177**	**4.7900e-003**	**2.5000e-004**	**5.0400e-003**	**0.0000**	**69.6990**	**69.6990**	**7.5100e-003**	**0.0000**	**69.8869**

3.10 2 - Roadway Paving - 2030

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0865	0.4890	1.0830	1.8300e-003		0.0155	0.0155		0.0155	0.0155	0.0000	156.8660	156.8660	7.0000e-003	0.0000	157.0411
Paving	0.0262					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1127**	**0.4890**	**1.0830**	**1.8300e-003**		**0.0155**	**0.0155**		**0.0155**	**0.0155**	**0.0000**	**156.8660**	**156.8660**	**7.0000e-003**	**0.0000**	**157.0411**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.4000e-003	0.1261	0.0733	6.8000e-004	0.0175	2.6000e-004	0.0177	4.7900e-003	2.5000e-004	5.0400e-003	0.0000	69.6990	69.6990	7.5100e-003	0.0000	69.8869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.4000e-003**	**0.1261**	**0.0733**	**6.8000e-004**	**0.0175**	**2.6000e-004**	**0.0177**	**4.7900e-003**	**2.5000e-004**	**5.0400e-003**	**0.0000**	**69.6990**	**69.6990**	**7.5100e-003**	**0.0000**	**69.8869**

3.11 2 - Roadway Arch Coating - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	7.3700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6000e-004	3.0000e-003	6.2900e-003	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.8936	0.8936	4.0000e-005	0.0000	0.8945
Total	**7.8300e-003**	**3.0000e-003**	**6.2900e-003**	**1.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.8936**	**0.8936**	**4.0000e-005**	**0.0000**	**0.8945**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.11 2 - Roadway Arch Coating - 2030

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	7.3700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6000e-004	3.0000e-003	6.2900e-003	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.8936	0.8936	4.0000e-005	0.0000	0.8945
Total	**7.8300e-003**	**3.0000e-003**	**6.2900e-003**	**1.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.8936**	**0.8936**	**4.0000e-005**	**0.0000**	**0.8945**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.11 2 - Roadway Arch Coating - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.0600e-003	0.0462	0.0971	1.6000e-004		1.1000e-003	1.1000e-003		1.1000e-003	1.1000e-003	0.0000	13.7876	13.7876	5.6000e-004	0.0000	13.8015
Total	**0.1208**	**0.0462**	**0.0971**	**1.6000e-004**		**1.1000e-003**	**1.1000e-003**		**1.1000e-003**	**1.1000e-003**	**0.0000**	**13.7876**	**13.7876**	**5.6000e-004**	**0.0000**	**13.8015**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.11 2 - Roadway Arch Coating - 2031

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.0600e-003	0.0462	0.0971	1.6000e-004		1.1000e-003	1.1000e-003		1.1000e-003	1.1000e-003	0.0000	13.7876	13.7876	5.6000e-004	0.0000	13.8015
Total	**0.1208**	**0.0462**	**0.0971**	**1.6000e-004**		**1.1000e-003**	**1.1000e-003**		**1.1000e-003**	**1.1000e-003**	**0.0000**	**13.7876**	**13.7876**	**5.6000e-004**	**0.0000**	**13.8015**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.570439	0.042308	0.209216	0.102853	0.012546	0.005789	0.027115	0.020014	0.001894	0.001437	0.004997	0.000631	0.000762

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0684	0.0000	2.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.3000e-004
Unmitigated	0.0684	0.0000	2.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0121					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0563					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.3000e-004
Total	**0.0684**	**0.0000**	**2.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**5.0000e-004**	**5.0000e-004**	**0.0000**	**0.0000**	**5.3000e-004**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0121					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0563					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.3000e-004
Total	**0.0684**	**0.0000**	**2.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**5.0000e-004**	**5.0000e-004**	**0.0000**	**0.0000**	**5.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation