PUBLIC REVIEW DRAFT | JULY 2019

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Chick-fil-A/In-N-Out • 17th and Tustin

LEAD AGENCY:

County of Orange
OC Public Works, Development Services/Planning
300 North Flower Street
Santa Ana, California 92703-4048
CEQA Contact: Kevin Shannon,
OC Development Services
(714) 667-1632

PREPARED BY:

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Santa Ana, CA 92707
Contact: Ms. Kristen Bogue
949.472.3505

JN 151800

Michael Baker INTERNATIONAL

PUBLIC REVIEW DRAFT

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Chick-fil-A/In-N-Out
17th and Tustin

PLANNING APPLICATION PA160055
INITIAL STUDY NO. PA160055

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July 2019

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DRAFT INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

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1.0 ENVIRONMENTAL CHECKLIST

1.1 BACKGROUND

1.	**Project Title:** Chick-fil-A/In-N-Out 17th and Tustin - PA 160055
2.	**Lead Agency Name and Address:** County of Orange OC Public Works, Development Services/Planning 300 North Flower Street Santa Ana, California 92703-4048
3.	**Contact Person and Telephone Number:** Kevin Shannon, OC Development Services/Planning (714) 667-1632
4.	**Project Location:** The proposed Chick-fil-A/In-N-Out 17th and Tustin (project) site is located in unincorporated Orange County, California, adjacent to the cities of Santa Ana and Tustin. Regionally, the site is located approximately 0.15-mile west of State Route 55 (SR-55) and approximately 0.9-mile northeast of Interstate 5 (I-5). Locally, the site is located at the northeast corner of N. Tustin Avenue and E. 17th Street.
5.	**Project Sponsor's Name and Address:** Ms. Jennifer M. Daw Design & Construction Chick-fil-A, Inc. 15635 Alton Parkway, Suite 350 Irvine, California 92618 Ms. Katie Sanchez Development Department In-N-Out Burger 13502 Hamburger Lane Baldwin Park, California 91706
6.	**General Plan Designation:** The *Orange County General Plan* (General Plan) designates the project site as "1B" (Suburban Residential).
7.	**Zoning:** The existing County of Orange zoning for the project site is 100-C1-10000(H) (Local Business) with a Housing Opportunities overlay.
8.	**Description of the Project:** The proposed Chick-fil-A/In-N-Out 17th and Tustin (project) is located in unincorporated Orange County, California, adjacent to the City of Santa Ana and west of the City of Tustin. The 3.32-acre site is located at the northeast corner of North Tustin Avenue and East 17th Street. The project involves the construction of a 4,777 square-foot (gross area) Chick-fil-A and 3,867 square-foot (gross area) In-N-Out Burger restaurant buildings, associated drive-through facilities, and 96 surface parking spaces (55 parking spaces for In-N-Out Burger and 41 parking spaces for Chick-fil-A), as well as landscaping and required utilities. Additionally, the project proposes to remove/relocate/bury overhead electrical wires and one utility pole, and construct an additional northbound deceleration and bus lane along Tustin Avenue. Refer to Section 3.0, *Project Description*.
9.	**Environmental Setting:** Refer to Section 3.1, *Project Location and Setting*.
10.	**Public Agency Approvals and Recommendations:** Refer to Section 3.3, *Project Approvals/Permitting Agencies*.

11. California Native American Tribal Consultation

Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures, regarding confidentiality, etc.?

Based on a Sacred Lands File search, conducted through the Native American Heritage Commission, no records are associated with the project site.[1] On December 15, 2016, the County initiated the tribal consultation process for the purposes of AB 52. Those tribes that have requested to be listed on the County's notification list for the purposes of AB 52 were notified in writing via U.S. Certified Mail. As part of this process, the County provided notification to each of these listed tribes the opportunity to consult with the County regarding the proposed project. The Gabrieleno Band of Mission Indians – Kizh Nation provided written notification to the County stating they do not wish to enter into consultation. None of the other tribes requested consultation.

1.2 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

This document incorporates the Environmental Checklist Form from Appendix G of the State CEQA Guidelines.

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact". Environmental factors unchecked indicate that impacts were determined to have resulted in no impacts, less than significant impacts, or less than significant impacts with mitigation measures or County Standard Conditions of Approval incorporated into the Project. Section numbers in parentheses following each environmental factor correspond to the environmental impact analysis in Section 3.0, *Project Description*.

✓	Aesthetics (4.1)		Mineral Resources (4.12)
	Agriculture and Forestry Resources (4.2)	✓	Noise (4.13)
✓	Air Quality (4.3)		Population and Housing (4.14)
	Biological Resources (4.4)		Public Services (4.15)
✓	Cultural Resources (4.5)		Recreation (4.16)
	Energy (4.6)	✓	Transportation/Traffic (4.17)
✓	Geology and Soils (4.7)	✓	Tribal Cultural Resources (4.18)
	Greenhouse Gas Emissions (4.8)		Utilities and Service Systems (4.19)
✓	Hazards and Hazardous Materials (4.9)		Wildfire (4.20)
✓	Hydrology and Water Quality (4.10)	✓	Mandatory Findings of Significance (4.21)
	Land Use and Planning (4.11)		

[1] Rincon Consultants, Inc., *Cultural Resources Records Search*, dated February 2, 2017. Refer to Appendix B, *Cultural Resources Study*.

1.3 LEAD AGENCY DETERMINATION

On the basis of this initial evaluation:

I find that there is no substantial evidence that the project will 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, revisions to the project or proposals have been made by or agreed to by the project proponent, that will avoid the effects or mitigate the effects to where no significant effects on the environmental will occur. 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. ☐

I find that the proposed project has previously been analyzed as part of an earlier CEQA document (which either mitigated the project or adopted impacts pursuant to findings) adopted/certified pursuant to State and County CEQA Guidelines. The proposed project is a component of the whole action analyzed in the previously adopted/certified CEQA document. ☐

I find that the proposed project has previously been analyzed as part of an earlier CEQA document (which either mitigated the project or adopted impacts pursuant to findings) adopted/certified pursuant to State and County CEQA Guidelines. Minor additions and/or clarifications are needed to make the previous documentation adequate to cover the project which are documented in this addendum to the earlier CEQA document (CEQA §15164). ☐

I find that the proposed project Has previously been analyzed as part of an earlier CEQA document (which either mitigated the project or adopted impacts pursuant to findings) adopted/certified pursuant to State and County CEQA Guidelines. However, there is important new information and/or substantial changes have occurred requiring the preparation of an additional CEQA document (ND or EIR) pursuant to CEQA Guidelines Sections 15162 through 15163. ☐

Signature: Kevin Shannon Date: July 15, 2019

Printed Name: Kevin Shannon

1.4 EVALUATION OF ENVIRONMENTAL IMPACTS

Section 1.4 analyzes the potential environmental impacts associated with the proposed project. The environmental factors evaluated in this Initial Study include:

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

A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

"Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).

Earlier analyses may be used where an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

a) *Earlier Analysis Used.* Identify and state where they are available for review.

b) *Impacts Adequately Addressed.* Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable

legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

c) *Mitigation Measures*. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

The explanation of each issue should identify:

a) The significance criteria or threshold, if any, used to evaluate each question; and

b) The mitigation measure identified, if any, to reduce a significant or potentially significant impact to a less than significant level.

The following information is provided to supplement the Evaluation of Environmental Impacts discussed above.

THRESHOLDS OF SIGNIFICANCE

Thresholds of significance are identifiable quantitative, qualitative or a performance level of a particular environmental effect. Non-compliance with a threshold means the effect will normally be determined to be significant and, conversely, compliance with a threshold means the effect will normally be less than significant (Guidelines §15064.7).

The County relies upon the specific questions relating to environmental impact areas listed in Appendix G of the State CEQA Guidelines to determine a level of significance.

ENVIRONMENTAL BASELINE

To adequately determine the significance of a potential environmental impact, the environmental baseline must be established. Guidelines Section 15125(a) states in pertinent part that the existing environmental setting will normally constitute the baseline physical conditions by which a lead agency will determine if an impact is significant.

Therefore, the environmental baseline for the Project constitutes the existing physical conditions as they exist at the time that the environmental process commenced (November 2016).

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2.0 INTRODUCTION

The proposed Chick-fil-A/In-N-Out 17th and Tustin (project) is located in unincorporated Orange County, California, adjacent to the City of Santa Ana and west of the City of Tustin. The 3.32-acre site is located at the northeast corner of North Tustin Avenue and East 17th Street. The project involves the construction of 4,777 square-foot (gross area) Chick-fil-A and 3,867 square-foot (gross area) In-N-Out Burger restaurant buildings, associated drive-through facilities, and 96 surface parking spaces (55 parking spaces for In-N-Out Burger and 41 parking spaces for Chick-fil-A), as well as landscaping and required utilities. Additionally, the project proposes to remove/relocate/bury overhead electrical wires and one utility pole, and construct an additional northbound deceleration and bus lane along Tustin Avenue.

Following a preliminary review of the proposed project, the County of Orange determined that the proposed project is subject to the guidelines and regulations of the California Environmental Quality Act (CEQA). This Initial Study/Mitigated Negative Declaration (IS/MND) analyzes the potential direct, indirect, and cumulative environmental effects of the proposed project.

CEQA STATUTORY AUTHORITY AND REQUIREMENTS

In accordance with CEQA (Public Resources Code Sections 21000-21177) and pursuant to Section 15063 of Title 14 of the California Code of Regulations (CCR), County of Orange as the Lead Agency, is required to undertake the preparation of an Initial Study to determine whether the proposed project would have a significant environmental impact. If the Lead Agency finds that there is no substantial evidence that the project, either as proposed or as modified to include the mitigation measures identified in the Initial Study, may cause a significant effect on the environment, the Lead Agency shall prepare a Negative Declaration (or Mitigated Negative Declaration) for that project. (Section 21080(c), Public Resources Code).

This Mitigated Negative Declaration, which may ultimately be adopted by the County of Orange in accordance with CEQA, is intended as an informational document undertaken to describe the potential environmental impacts of the project. However, the resulting documentation is not a policy document, and its approval and/or certification neither presupposes nor mandates any actions on the part of those agencies from whom permits and other discretionary approvals would be required.

2.1 PURPOSE

Section 15063 of the *CEQA Guidelines* identifies specific disclosure requirements for inclusion in an Initial Study. Pursuant to those requirements, an Initial Study shall include:

- A description of the project, including the location of the project;
- An identification of the environmental setting;
- An identification of environmental effects by use of a checklist, matrix, or other method, provided that entries on a checklist or other form are briefly explained to indicate that there is some evidence to support the entries;

- A discussion of ways to mitigate significant effects identified, if any;
- An examination of whether the project would be consistent with existing zoning, plans, and other applicable land use controls; and
- The name(s) of the person(s) who prepared or participated in the preparation of the Initial Study.

2.2 INCORPORATION BY REFERENCE

The long-range planning documents listed below were utilized during the preparation of this Initial Study. The County of Orange documents are available for review at the County of Orange, OC Pubic Works, Development Services/Planning. Orange County Development Services/Planning is located at 300 North Flower Street, Santa Ana, California 92703. Documents related to Santa Ana are available at the City of Santa Ana Planning Department at 20 Civic Center Plaza, Santa Ana, California 92701.

- *County of Orange General Plan* (July 2014). The *County of Orange General Plan* (County General Plan), dated July 2014, addresses unincorporated territory and affects the entire county. The County General Plan includes the required seven elements: Land Use, Transportation, Resources, Recreation, Noise, Safety, and Housing. It also includes two optional elements: Public Services and Facilities and Growth Management. The County General Plan is used for general background information on the County and is referenced throughout the document.

- *The Codified Ordinances of the County of Orange.* The *Codified Ordinances of the County of Orange* (County Municipal Code), Codified through Ordinance No. 16-002, enacted March 15, 2016 (Supplement No. 130), consists of codes and ordinances adopted by the County. These include standards intended to regulate land use, development, health and sanitation, water quality, public facilities, and public safety. Article 2 of the County Municipal Code includes *The Comprehensive Zoning Code* (County Zoning Code). The County Zoning Code is utilized to implement the General Plan, and provide a guide for the growth and development of the unincorporated land within the County. The County Zoning Code contains development regulations for specified districts within the County. The County Municipal Code, containing specific rules and regulations pertaining to the County, is referenced throughout the document.

- *Standard Conditions of Approval Manual* (April 2001). The County of Orange *Standard Conditions of Approval Manual* (County Standard Conditions of Approval), April 2001 Edition, consists of standard conditions adopted by the County. The application of each condition should be evaluated on a project-by-project basis and incorporated as appropriate. The County Standard Conditions of Approval have been applied throughout the document.

- *City of Santa Ana General Plan* (January 2010). The *City of Santa Ana General Plan* (Santa Ana General Plan), adopted in July 25, 2006, provides a general, comprehensive, and long-range guide for community decision-making. The Santa Ana General Plan is organized into 16 elements: Airport Environs; Circulation; Conservation; Economic Development; Education; Energy; Growth Management; Housing; Land Use; Noise; Open

Space, Parks and Recreation; Public Facilities; Public Safety; Scenic Corridors; Seismic Safety; and Urban Design. Each element presents an overview of its scope, summary of conditions and planning issues, goals, objectives, policies, and programs.

- *City of Santa Ana Code of Ordinances*. The *City of Santa Ana Code of Ordinances* (Santa Ana Municipal Code), Codified through Ordinance No. 2944, adopted May 1, 2018, consists of regulatory, penal, and administrative ordinances of the City of Santa Ana. It is the method that Santa Ana uses to implement control of land uses, in accordance with Santa Ana General Plan goals and policies. The *Zoning*, Chapter 41 of the Santa Ana Municipal Code, is to promote growth in Santa Ana in an orderly manner, while promoting public health, safety, peace, comfort, and general welfare.

These documents, incorporated by reference, were utilized throughout this document as the fundamental planning documents that may apply to work on the project site. Background information and policy information, as well as specific adopted rules and regulations pertaining to the County were also relied upon throughout this document.

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3.0 PROJECT DESCRIPTION

3.1 PROJECT LOCATION AND SETTING

PROJECT LOCATION

The proposed Chick-fil-A/In-N-Out 17th and Tustin (project) site is located in unincorporated Orange County, California, adjacent to the City of Santa Ana and west of the City of Tustin; refer to Exhibit 3-1, *Regional Vicinity*. The site is located within an unincorporated County island. Regionally, the site is located approximately 0.15-mile west of State Route 55 (SR-55) and approximately 0.9-mile northeast of Interstate 5 (I-5). Locally, the site is located at the northeast corner of North Tustin Avenue and East 17th Street; refer to Exhibit 3-2, *Site Vicinity*.

EXISTING CONDITIONS

The project site consists of 3.32 acres of highly disturbed vacant property and is generally level; refer to Exhibit 3-3, *Existing Conditions Photographs*. The site is fenced and vehicular access is available only for remediation activities and is provided from Ponderosa Street. Historically, the project site was developed with commercial uses from the 1960s until 1997 (i.e., office uses, a Mobil gasoline service station, and a dry cleaning facility). These structures have since been demolished, and the site is currently undergoing remediation activities (soil vapor extraction [SVE] process) to ensure residual tetrachloroethylene (PCE) and trichloroethylene (TCE) soil contaminant levels (from the former on-site drycleaner) are within Department of Toxic Substances Control standards for commercial (restaurant) uses. Refer to Section 4.9(b) for a discussion of the SVE. It is noted that the site is regularly disked. The site is accessed along both 17th Street and Ponderosa Street. Surrounding uses primarily consist of vacant land, residential, and commercial uses. Table 3-1, *Surrounding Land Uses*, further describes the adjacent development.

Table 3-1
Surrounding Land Uses

Direction	City/County	General Plan Designation	Zoning	Existing Uses
North	City of Santa Ana	General Commercial (GC) and Low Density Residential (LR-7)	C1	Vacant land, multi-family residential (The Ponderosa) and commercial (i.e., Laguna Hills Nursery and Family Planning Associates Medical Group (FPA Women's Health)
East	County of Orange	Suburban Residential (1B) (0.5 – 18 DU/AC)	C1 (H) R2 R1	Single- and multi-family residential and commercial (Ponderosa Plaza) uses
South	City of Santa Ana	General Commercial (GC)	C1	Commercial (i.e., Starbucks, Shoe City-Tustin, and Denny's to the south, and Centre on Seventeenth to the southeast) uses
West	City of Santa Ana	General Commercial (GC)	C2	Commercial (i.e., 7-Eleven gasoline service station, restaurants, and medical offices) uses

Notes:
C1 = Community Commercial
C2 = General Commercial
R1 = Single-Family Residence
H = Housing Opportunities
R2 = Multi-Family Dwellings

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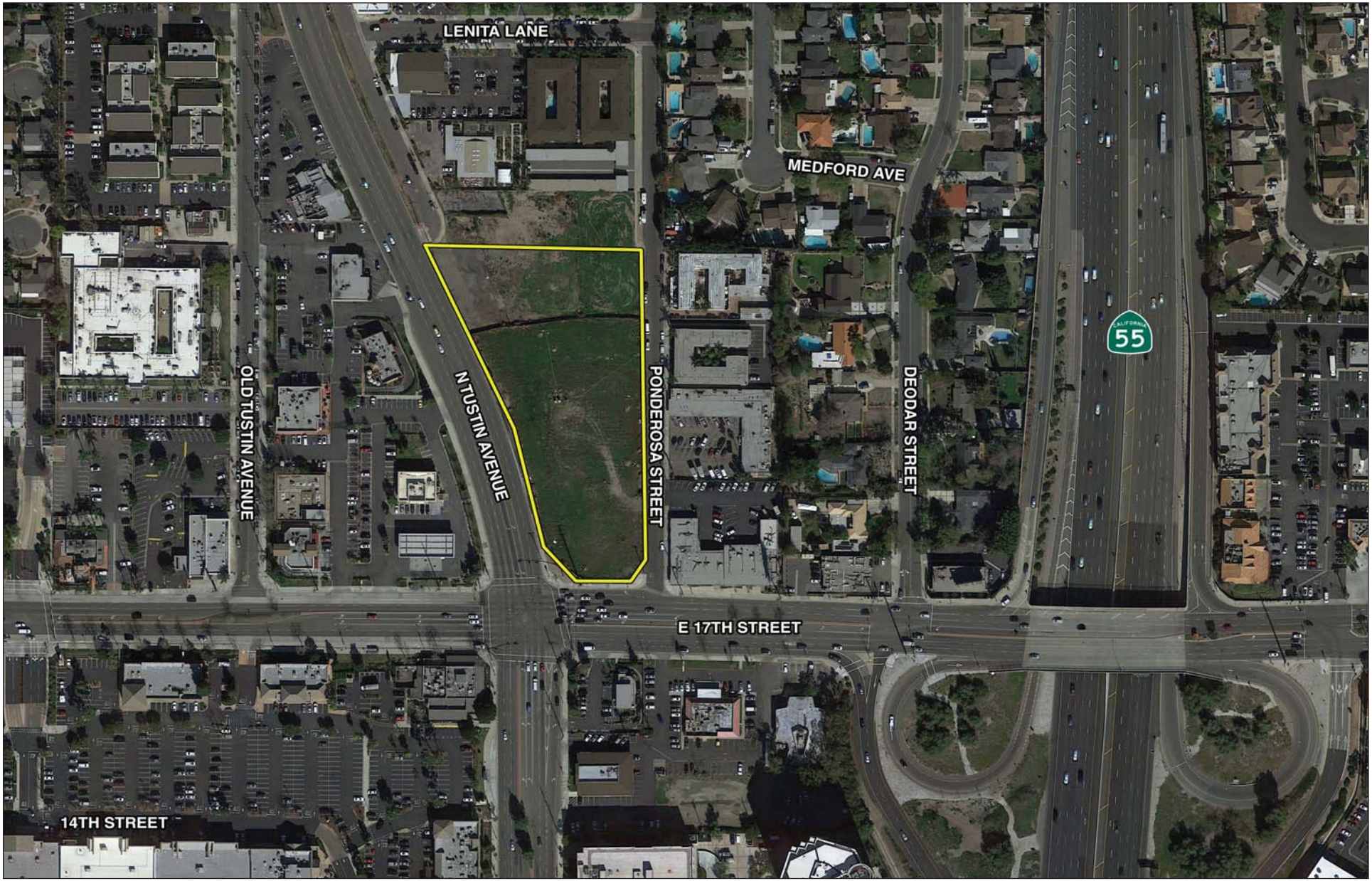
CHICK-FIL-A/IN-N-OUT 17TH AND TUSTIN
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Regional Vicinity

Exhibit 3-1



Source: Google Earth, 2016.
- Project Area

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CHICK-FIL-A/IN-N-OUT 17TH AND TUSTIN
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Site Vicinity

Exhibit 3-2

Multi-family residential uses (The Ponderosa) to the north of the project site.

View looking west of the project site towards North Tustin Avenue and existing commercial uses.

Commercial uses (Laguna Hills Nursery) to the north of the project site.

View looking east towards the project site.

View looking southeast towards the project site.

Ponderosa Street and commercial uses to the east of the project site.

EXISTING ZONING AND GENERAL PLAN

Per the *Orange County General Plan Official Land Use Map*, the project site and surrounding County-properties to the east are designated 1B (Suburban Residential). Properties designated 1B allow for development of commercial uses. Per the *Orange County Zoning Map*, the project site is zoned 100-C1-10000(H) (Local Business – Affordable Housing Opportunity overlay). The Affordable Housing Opportunity overlay provides for the opportunity, but not an obligation, to develop an affordable housing project on the site, pursuant to applicable County processes. The surrounding properties in the County (to the east) are zoned C1 (Local Business), R2 (Multi-Family Dwellings), and R1 (Single-Family Residence).

Per the *City of Santa Ana General Plan Land Use Plan*, the surrounding properties to the south, west, and north are designated GC (General Commercial) and a property to the north is designated LR-7 (Low Density Residential). Per the *City of Santa Ana Zoning Map*, the surrounding properties to the north and south are zoned C1 (Community Commercial) and to the west are zoned C2 (General Commercial).

3.2 PROPOSED PROJECT

The project proposes constructing two new drive-thru facilities, Chick-fil-A restaurant and In-N-Out Burger restaurant, at the project site. The Chick-fil-A restaurant would be a 4,777 square-foot (gross area), one-story building with an additional 520 square feet of outdoor dining space for a total area of 5,297 square feet; refer to Exhibit 3-4, *Conceptual Site Plan*. The Chick-fil-A restaurant would include a dual lane drive-thru with a total queue storage of 30 vehicles. The restaurant would have a traditional layout (178 total seats) with an indoor dining area (130 indoor seats), outdoor dining area (36 outdoor seats), kitchen area, and service area. The kitchen area includes a freezer, a cooler, stacked convention ovens, and preparation and finishing tables. The restaurant would also include office space for managerial purposes, a multi-purpose work area, men's and women's restrooms, and an indoor play area for children. The proposed hours of operation would be Monday through Saturday from 6:00 a.m. to 12:00 a.m. The restaurant would be closed on Sundays. The proposed Chick-fil-A restaurant would result in approximately 50 to 70 full and/or part time employees; with anywhere from 10 to 20 employees on shift at any one time.

The Chick-fil-A restaurant would have a maximum height of 22 feet, 6 inches and would be designed with various architectural building elements, including metal and fabric awnings, three varieties of stucco paint (Grecian Ivory, Studio Taupe, and Grizzle Gray), Hardie trim, and illuminated restaurant identification signage on the building's north, south, and west elevations; refer to Exhibit 3-5, *Chick-fil-A Building Elevations*. A monument sign would be installed at the southeast corner of the project site. The restaurant would include two 12-foot wide drive-thru lanes (that condense to one 12-foot lane) located at the western portion of the project site and wraps around three sides of the building, exiting along the eastern portion of the building. The proposed Chick-fil-A would provide a speaker box approximately 160 feet from the drive-thru window.

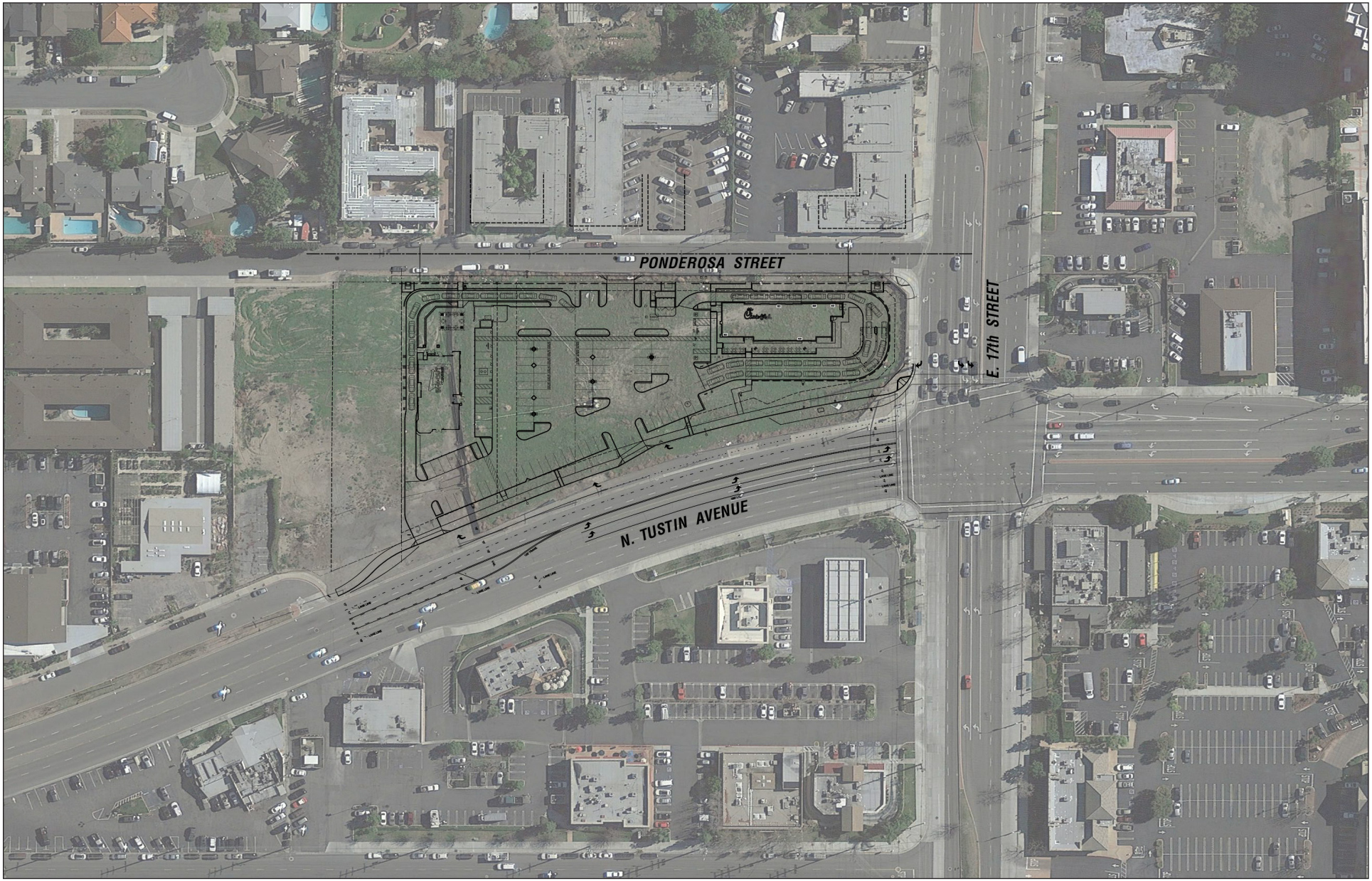
The In-N-Out Burger restaurant would be 3,867 square-foot (gross area), one-story building with an outdoor 400-square-foot patio dining area for a total area of 4,267 square feet; refer to Exhibit 3-4. The In-N-Out Burger restaurant would have a single drive-thru lane with queue storage of 14 vehicles. The restaurant would have a traditional layout (101 total seats) with an indoor dining

area (77 indoor seats), outdoor dining area (24 outdoor seats), kitchen area, and service area. The kitchen area includes a preparation area, a cooler, kitchen accessory area, and potato storage and peeling area. The kitchen would also be designed to include three grills and six fryers in order to serve customers efficiently and in a timely manner. The restaurant would also include office space for managerial purposes, two dressing rooms, and men's and women's restrooms. The In-N-Out restaurant would operate seven days a week, from 10:30 a.m. to 1:00 a.m. on Sundays through Thursdays, and from 10:30 a.m. to 1:30 a.m. on Fridays and Saturdays. The proposed In-N-Out restaurant would result in approximately 30 full time employees and 20 part time employees; with two shifts (a day shift and a night shift) and approximately 15 employees per shift.

The In-N-Out Burger restaurant would have a maximum height of 28 feet and would be designed with various architectural building elements, including two varieties of stucco paint (Bone China White for the building and Hot Jazz for a red band around building), Terra Cotta for tower roof tiles, custom awnings, and illuminated restaurant identification signage on the building's south, and east elevations; refer to Exhibit 3-6, *In-N-Out Building Elevations*. The restaurant would include an 11-foot wide drive-thru lane located at the eastern portion of the project site and wraps around two sides of the building, exiting along the northwestern corner of the building. The drive-thru speaker box would be placed at the eighth car back from the first pay window (and approximately 100 feet from the pick-up window) in order to allow more time to process the customer's order. The speaker box would also be designed with adjustable volume control capabilities. A perimeter wall, two feet in height, would be constructed along the In-N-Out Burger drive-thru facility, near Ponderosa Street; refer to Exhibit 3-7, *Proposed Wall Section*. A slightly sloped berm feature would be installed along the wall to provide increased planting along Ponderosa Street.

Chick-fil-A would have truck deliveries mostly between 11:00 p.m. and 6:00 a.m., Monday through Saturday. Truck deliveries would include one small truck six times a week for food (excluding produce and bread) and dry supplies, one small truck five times a week for bread deliveries, and one small truck three to six days a week for produce. In some cases, truck deliveries may need to occur during the day; however, in these cases, Chick-fil-A would ensure that these deliveries do not occur during the afternoon or peak hours to avoid interference with the drive-thru and restaurant operations. In-N-Out Burger would have one truck delivery every other day during closure hours (between 1:00 a.m. and 8:00 a.m.).

The project would construct two ingress/egress driveways on Tustin Avenue and one ingress/egress driveway on Ponderosa Street. The north project driveway on Tustin Avenue is proposed to be limited to right turn out only for exiting vehicles and would be slightly offset from the existing driveway for Annie's Salon and Spa. The south project driveway on Tustin Avenue is a right-in/right-out only access that will be slightly offset from the existing driveway for the 7-Eleven store. The driveway on Ponderosa Street would include directional signage to allow for right-turn only egress movements and would be slightly offset from the existing driveway for the Ponderosa Plaza.



Source: C•R•H•O Architecture Interior Planner, dated June 6, 2016.

NOT TO SCALE

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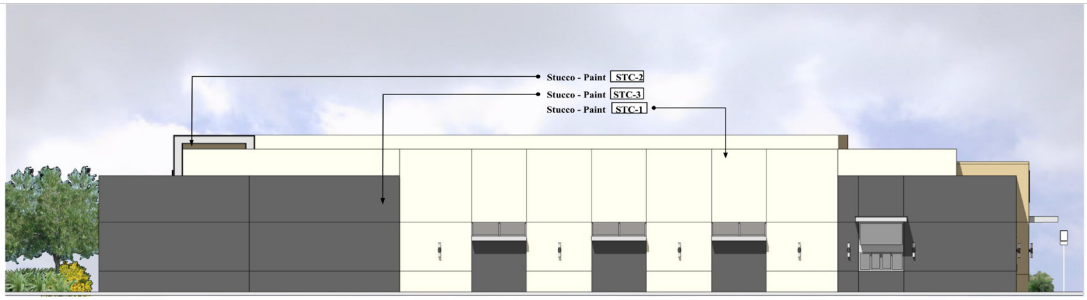
CHICK-FIL-A/IN-N-OUT 17TH AND TUSTIN
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Conceptual Site Plan

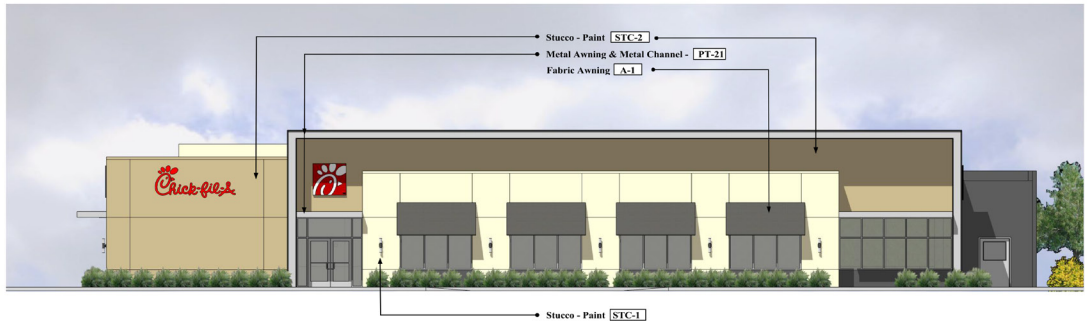
Exhibit 3-4

SOUTH ELEVATION



EAST ELEVATION

NORTH ELEVATION



WEST ELEVATION

Source: C•R•H•O Architecture Interior Planner, dated February 17, 2016.

NOT TO SCALE

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CHICK-FIL-A/IN-N-OUT 17TH AND TUSTIN
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Chick-fil-A Building Elevations

Exhibit 3-5

2 A8.0 SOUTH ELEVATION
SCALE: 1/4" = 1'-0"

1 A8.0 EAST ELEVATION
SCALE: 1/4" = 1'-0"

Source: In-N-Out Burger, dated July 22, 2015.

NOT TO SCALE

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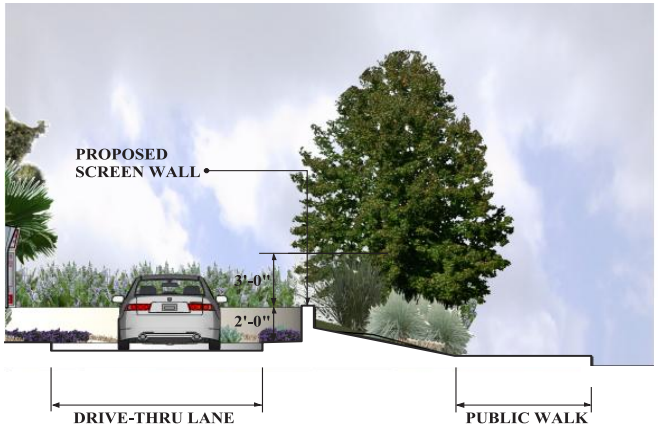
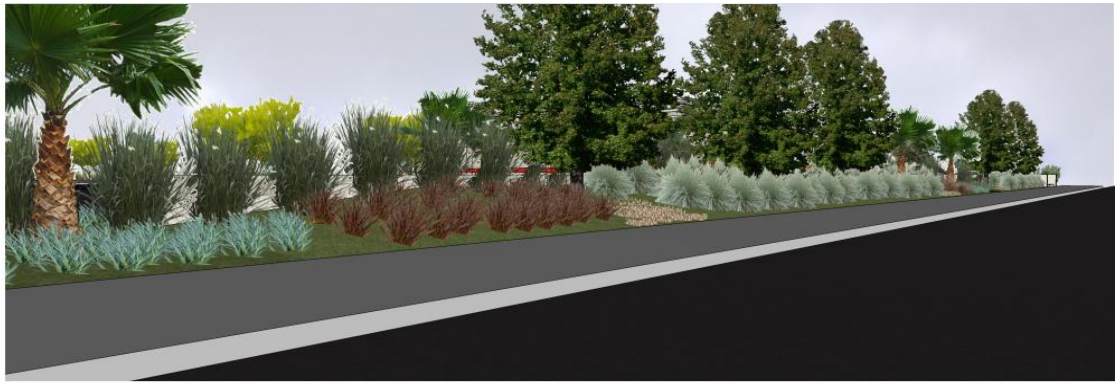
CHICK-FIL-A/IN-N-OUT 17TH AND TUSTIN
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

In-N-Out Building Elevations

Exhibit 3-6



SECTION A



STREET VIEW

WEST ELEVATION

Source: C•R•H•O Architecture Interior Planner, dated September 5, 2017.

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CHICK-FIL-A/IN-N-OUT 17TH AND TUSTIN
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Proposed Wall Section

Exhibit 3-7e

The project would provide 55 vehicle parking spaces for In-N-Out Burger (48 standard spaces, 4 electric vehicle spaces, and 3 handicap spaces) and 41 vehicle parking spaces for Chick-fil-A (37 standard spaces, 2 electric vehicle spaces, and 2 handicap spaces). Trees (such as Mexican Fan Palm, California Fan Palm, Australian Willow, Chaste Tree, Mexican Palo Verde, Sweet Bay, and Holly Oak), grasses, crushed stone, and shrubs would align the boundary of the project site and drive-thru lanes, and would be incorporated in the parking lot medians; refer to Exhibit 3-8, *Conceptual Landscape Plan*.

A new sewer lateral would be constructed within Ponderosa Street along the project frontage and connecting into a sewer main located in 17th Street. Water service connections would be made to the project site from an existing water line within Ponderosa Street right-of-way. Stormwater runoff from the project site would drain from the north to west and south, to North Tustin Avenue and East 17th Street, respectively. At 17th Street, there is an existing municipal storm drain system where surface runoff from the site would drain to an existing curb opening catch basin and an existing 36-inch reinforced concrete pipeline for ultimate conveyance to the Upper Newport Bay and finally to the Pacific Ocean.

The project would construct an on-site underground infiltration gallery to contain on-site stormwater runoff on the site for a 24-hour storm event. The stormwater would flow into catch basins located on-site, treated via a pre-treatment filter, and collected in the infiltration gallery. The stormwater in the infiltration gallery would infiltrate the surrounding gravel and underlying soil. In the event that the infiltration gallery exceeds capacity, the infiltration system would be bypassed and excess stormwater (that exceeding a 24-hour storm event) would flow through an underground pipe, discharging into the existing municipal storm drain system in Tustin Avenue.

The lighting at the project site would include building, signage, parking lot, and security lighting.

The project proposes to relocate one utility pole at the northwest corner of Ponderosa Street and 17th Street and remove six utility poles along the east side of North Tustin Avenue. The existing overhead electrical powerlines along North Tustin Avenue (from the southern portion of the project site [along 17th Street), along Tustin Avenue, to approximately 235 feet north of the project site), would be undergrounded in accordance with the requirements of the local electric utility/purveyor (Southern California Edison); as depicted in Exhibit 3-4. Other off-site infrastructure improvements would include the dedication of additional roadway right-of-way for construction of an additional northbound deceleration lane along Tustin Avenue (from East 17th Street to the southern project driveway), a dedicated bus turnout lane along Tustin Avenue adjacent to the southerly portion of the project site, and an additional northbound acceleration/merge lane along Tustin Avenue (from the northern project driveway to approximately 60 feet north); refer to Exhibit 3-9a and Exhibit 3-9b, *Tustin Avenue Improvements*.

REORGANIZATION (ANNEXATION)

The project site is located in the 17th Street and Tustin Unincorporated Island within the City of Santa Ana Sphere of Influence. The City of Santa Ana has initiated a reorganization[1] of the 17th

[1] "Reorganization" means two or more changes of organization contained in a single proposal (California Government Code §56073). A change of organization may include any of the following: annexation to a city or a district; detachment from a city or a district; a district dissolution or formation; a city incorporation or disincorporation; a consolidation of cities or districts; a merger of a city and a district; establishment of a subsidiary district; or exercise of new functions by a special district (California Government Code §56021)

Street and Tustin Unincorporated Island from the County of Orange into the City of Santa Ana and detachment from the Municipal Water District of Orange County.

The reorganization consists of (1) the annexation of 17th Street and Tustin Unincorporated Island (approximately 25 acres including the project site) from the County of Orange to the City of Santa Ana and (2) detachment of the same territory from the Municipal Water District of Orange County. It is acknowledged that this reorganization is being conducted by the City of Santa Ana as a separate project, subject to CEQA with the City of Santa Ana as the lead agency, and is not contemplated as an action under this project.

As part of the reorganization, the City of Santa Ana would be entering into a Water Service Agreement with the City of Tustin and Cooperative Agreement with the County of Orange. The agreements include the following:

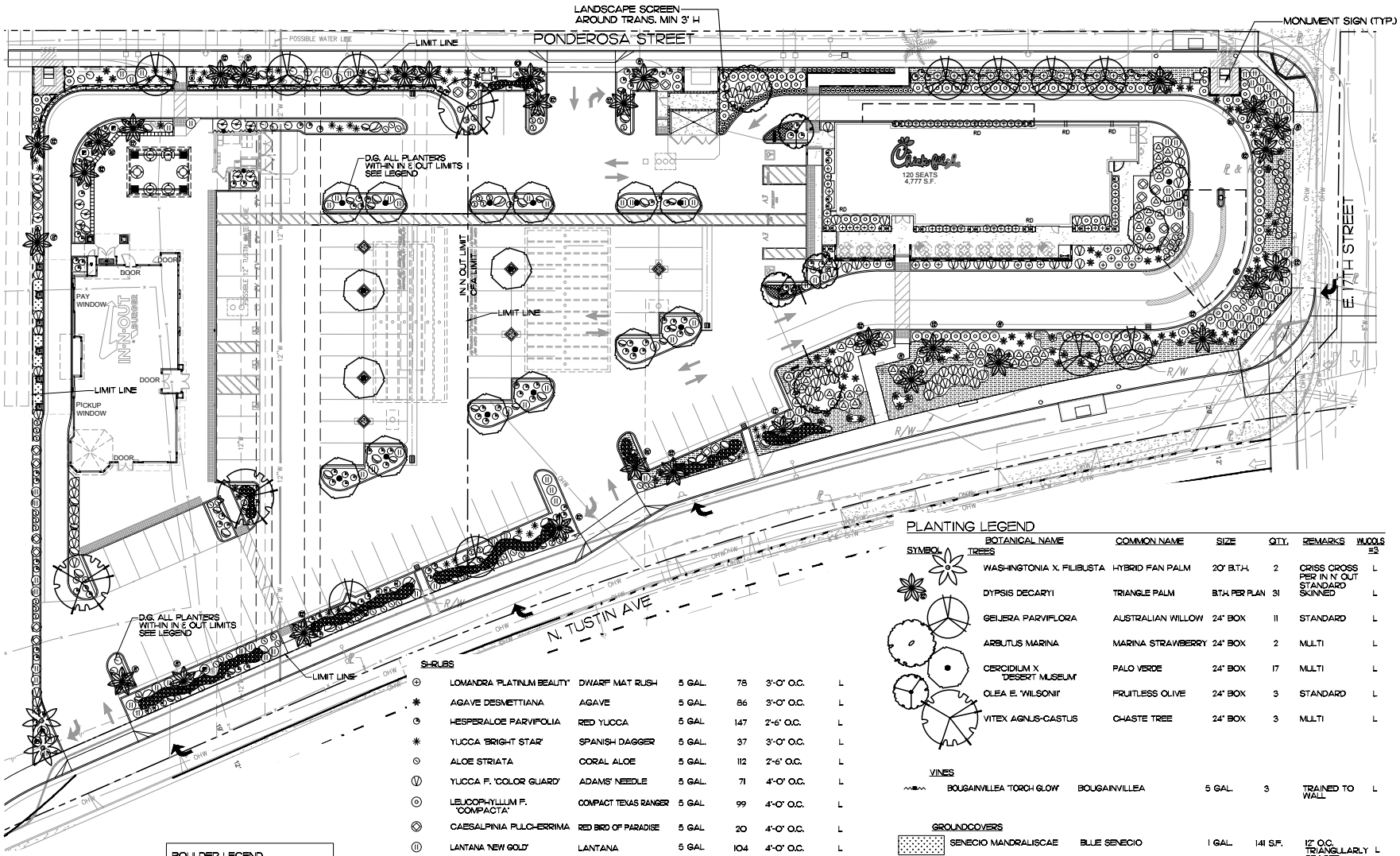
- The water agreement entitled "Service Agreement by and Between the City of Santa Ana and the City of Tustin regarding Potable Water Service for Various Parcels of Unincorporated Real Property" is an agreement between the City of Tustin and City of Santa Ana, whereby Tustin would provide Potable Water Service to the entire 17th Street and Tustin Unincorporated Island including the project site.

- The cooperative agreement entitled "Cooperative Agreement between the City of Santa Ana and the County of Orange for the Reorganization of the 17th Street and Tustin Unincorporated Island to the City of Santa Ana and Municipal Water District of Orange County" is intended for the City of Santa Ana to contract with the County of Orange for the performance of Development Approvals of the project site upon the annexation of the 17th Street and Tustin Unincorporated Island.

Upon annexation of the 17th Street and Tustin Unincorporated Island, the City of Santa Ana would be the sewer service provider to all of the parcels located within the unincorporated island and the City of Tustin would be the potable water service provider to all of the parcels within the unincorporated island.

PROJECT PHASING AND CONSTRUCTION

Construction of the project is anticipated to commence in Winter 2020 and to be completed by Fall 2021. Construction of the proposed project would occur over a single phase over a six month duration. Site grading is anticipated to take approximately 14 days to complete and would consist of approximately 814 cubic yards of cut and fill balanced on-site. Upon completion of site grading activities, proposed foundations, installation of utilizes, and paving would take approximately 18 to 20 weeks. Installation of building facilities (e.g., kitchen, décor, etc.), exterior finishing, landscaping, and parking lot striping would take approximately 6 weeks. It is acknowledged that construction of additional roadway right-of-way (including the dedicated bus turnout and deceleration lane along Tustin Avenue) and undergrounding of electrical power lines would result in partial lane closures during grading activities (approximately 18-20 weeks) along Ponderosa Street, 17th Street, and Tustin Avenue.



BOULDER LEGEND

1	1' X 2' X 3'
2	2' X 4' X 3'
3	3' X 3' X 3'

BOULDER PLACEMENT (GROUPINGS) SHALL BE REVIEWED BY THE LANDSCAPE ARCHITECT PRIOR TO PLACEMENT - ALL BOULDERS AVAIL. THRU SOUTHWEST BOULDER & STONE 877-792-7625 COLOR PER IN N OUT STANDARDS

PLANTING LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QTY.	REMARKS	WUCOLS +/-
TREES						
	WASHINGTONIA X. FILIBUSTA	HYBRID FAN PALM	20' B.T.H.	2	CRISS CROSS PER IN N' OUT STANDARD	L
	DYPSIS DECARYI	TRIANGLE PALM	B.T.H. PER PLAN	31	SKINNED	L
	GEIJERA PARVIFLORA	AUSTRALIAN WILLOW	24" BOX	11	STANDARD	L
	ARBUTUS MARINA	MARINA STRAWBERRY	24" BOX	2	MULTI	L
	CERCIDIUM X 'DESERT MUSEUM'	PALO VERDE	24" BOX	17	MULTI	L
	OLEA E. 'WILSONII'	FRUITLESS OLIVE	24" BOX	3	STANDARD	L
	VITEX AGNUS-CASTUS	CHASTE TREE	24" BOX	3	MULTI	L
VINES						
	BOUGAINVILLEA 'TORCH GLOW'	BOUGAINVILLEA	5 GAL.	3	TRAINED TO WALL	L
GROUNDCOVERS						
	SENECIO MANDRALISCAE	BLUE SENECIO	1 GAL.	141 S.F.	12" O.C. TRIANGULARLY SPACED	L
	SENECIO SERPENS	BLUE CHALKSTICKS	1 GAL.	3,035 S.F.	16" O.C. TRIANGULARLY SPACED	L
	FESTUCA 'ELIJAH BLUE'	BLUE FESCUE	1 GAL.	131 S.F.	16" O.C. TRIANGULARLY SPACED	L
	DRY STREAM BED	ROCK W/ WEED BARRIER - 6"-8" DIA. ROUNDED - INSTALLED TIGHTLY - SIERRA COBBLE AVAIL. SOUTHWEST BOULDER & STONE - 877.792.7625	-	972 S.F.	-	
	DECOMPOSED GRANITE	NOTE: ALSO PROVIDE STABILIZED DECOMPOSED GRANITE IN ALL PLANTER AREAS, MANUFACTURED SOUTHWEST BOULDER AND STONE 3/8" MINUS TAN COLOR, 3" THICK	-	5,499 S.F.	STABILIZED TAN COLOR	
SHRUBS						
	LOMANDRA 'PLATINUM BEAUTY'	DWARF MAT RUSH	5 GAL.	78	3'-0" O.C.	L
	AGAVE DESMETTIANA	AGAVE	5 GAL.	86	3'-0" O.C.	L
	HESPERALOE PARVIFOLIA	RED YUCCA	5 GAL	147	2'-6" O.C.	L
	YUCCA 'BRIGHT STAR'	SPANISH DAGGER	5 GAL.	37	3'-0" O.C.	L
	ALOE STRIATA	CORAL ALOE	5 GAL.	112	2'-6" O.C.	L
	YUCCA F. 'COLOR GUARD'	ADAMS' NEEDLE	5 GAL.	71	4'-0" O.C.	L
	LEUCOPHYLLUM F. 'COMPACTA'	COMPACT TEXAS RANGER	5 GAL	99	4'-0" O.C.	L
	CAESALPINIA PULCHERRIMA	RED BIRD OF PARADISE	5 GAL	20	4'-0" O.C.	L
	LANTANA 'NEW GOLD'	LANTANA	5 GAL	104	4'-0" O.C.	L
	FESTUCA CALIFORNICA	CALIFORNIA FESCUE	1 GAL	75	2'-0" O.C.	L
	SALVIA 'SANTA BARBARA'	SAGE	5 GAL	76	4'-0" O.C.	L
	AGAVE 'RAY OF LIGHT'	AGAVE	5 GAL	31	2'-6" O.C.	L
	EUPHORBIA HETEROPHYLLA	MEXICAN FIRE PLANT	5 GAL	51	2'-6" O.C.	L
	TECOMA X 'SIERRA APRICOT'	APRICOT ESPARANZA	5 GAL	10	2'-6" O.C.	L
	CALLIANDRA CALIFORNICA	BAJA FAIRY DUSTER	5 GAL	11	2'-6" O.C.	L
	YUCCA RECURVIFOLIA	SOFT LEAF YUCCA	5 GAL	6	2'-6" O.C.	L

Source: C•R•H•O Architecture Interior Planner and Hourian Associates, Inc., Sheet L-1, Preliminary Planting Plan, dated December 5, 2018.

NOT TO SCALE

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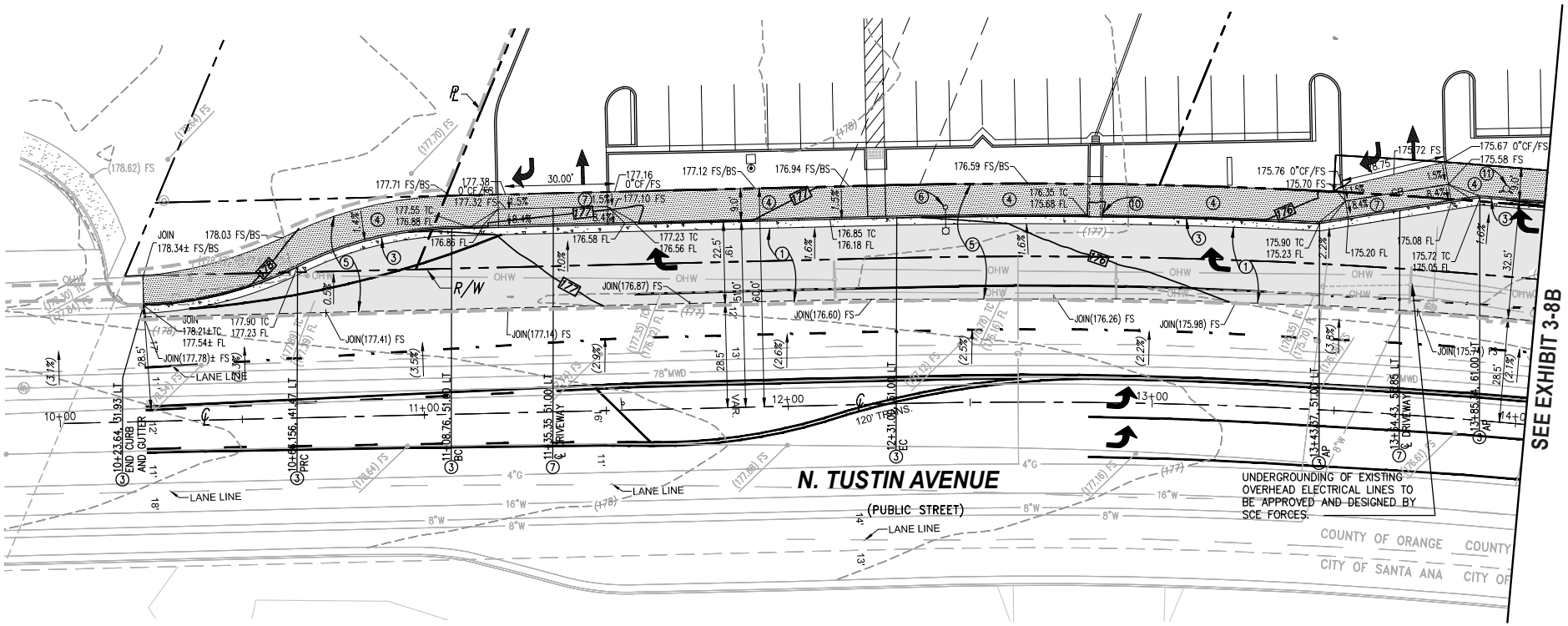
05/19 JN 151800

CHICK-FIL-A/IN-N-OUT 17TH AND TUSTIN
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Conceptual Landscape Plan

Exhibit 3-8



Source: Joseph C. Truxaw and Associates, Inc., Sheet ST-2, Tustin Avenue Street Plan, dated December 7, 2018.

NOT TO SCALE

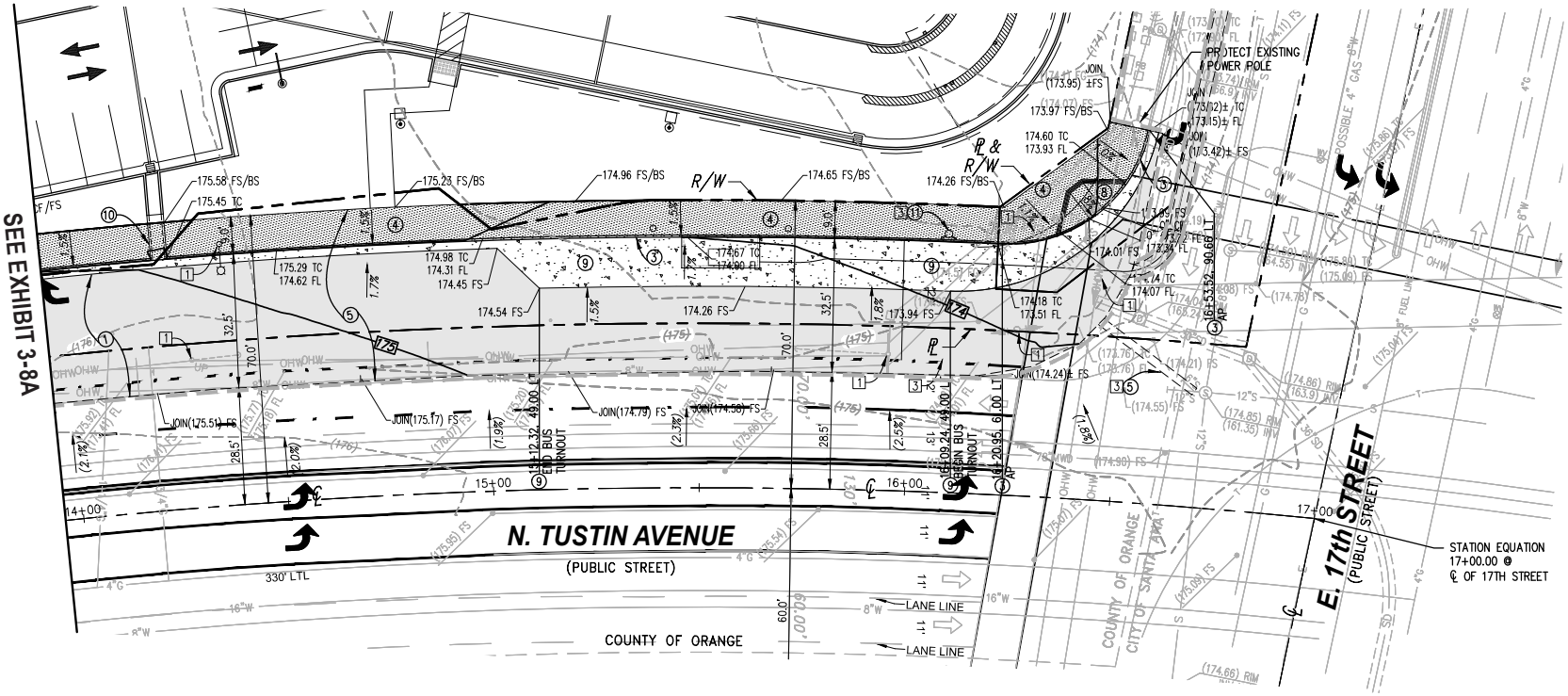
Michael Baker INTERNATIONAL

05/19 JN 151800

CHICK-FIL-A/IN-N-OUT 17TH AND TUSTIN
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Tustin Avenue Improvements

Exhibit 3-9a



Source: Joseph C. Truxaw and Associates, Inc., Sheet ST-3, Tustin Avenue, dated December 7, 2018.

NOT TO SCALE

Michael Baker INTERNATIONAL

05/19 JN 151800

CHICK-FIL-A/IN-N-OUT 17TH AND TUSTIN
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Tustin Avenue Improvements

Exhibit 3-9b

3.3 PROJECT APPROVALS/PERMITTING AGENCIES

The IS/MND is intended to provide environmental review for full implementation of the project, including all discretionary actions and ministerial permits associated with it. The list of permits and approvals herein does not limit the applicability of the IS/MND to other permits or approvals that may be required because the IS/MND has analyzed the full scope of potential environmental impacts that could be associated with the project. The County is the Lead Agency with approval authority over the project. Other potential agency approvals and permits are listed here for informational purposes.

COUNTY APPROVALS AND PERMITS

- Adoption of a Final Mitigated Negative Declaration;
- Approval of Site Development Permit;
- Grading permit;
- Building permits;
- Landscape Planting Plan approval;
- Irrigation System Improvement Plan approval;
- Fire Master Plan, and Fire Suppression and Fire Alarm permits;
- Plumbing, Electrical, Signs, and Structural Permits;
- County of Orange, Environmental Health Permit; and
- Water Quality Management Plan approval.

POTENTIAL PERMITS/APPROVALS FROM OTHER AGENCIES

- LAFCO Approval[2] of:
    - Cooperative Agreement with City of Santa Ana and the County of Orange (for the purposes of annexation, which would also include an agreement to serve the site for sewer services); and
    - "Out of Area" Service Agreement between City of Santa Ana and City of Tustin for the City of Tustin to serve the project site for water services;
- Southern California Gas Company;
- Regional Water Quality Control Board General Construction Permit/Storm Water; Pollution Prevention Plan; and
- Southern California Edison Utility Relocation Permits and Connection.

[2] These approvals are not contemplated by this Initial Study.

4.0 ENVIRONMENTAL ANALYSIS

A Mitigated Negative Declaration has been prepared for the proposed project because the Initial Study concluded that the proposed Chick-fil-A/In-N-Out 17th and Tustin project (the project) would not result in significant unavoidable environmental impacts, once mitigation measures are implemented. The following Sections 4.1 through 4.21 provide a discussion of the potential project impacts as identified in the Initial Study/Mitigated Negative Declaration (IS/MND). Explanations are provided within each corresponding impact category in this analysis.

4.1 AESTHETICS

Except as provided in Public Resources Code Section 21099, would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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. In non-urbanized areas, 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?			✓	
d. Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?			✓	

a. Have a substantial adverse effect on a scenic vista?

No Impact. According to the Resources Element of the General Plan, the project site is not designated as a scenic vista. In addition, the project site does not provide any unobstructed views of County-designated scenic vistas. The project site is located within a developed portion of Orange County, and is surrounded by residential, commercial, and transportation uses. According to the City of Santa Ana General Plan, 17th Street is identified as a secondary corridor. A secondary corridor provides "stitching" to link neighborhoods, District Centers and Mixed Use Corridors together. Refer to Response 4.1(c) for a discussion of project impacts to character/quality of the project area. Although identified as a secondary corridor, no specific visual resources are identified to warrant these views as a scenic vista. There are no specifically identified designated scenic corridors located near the project site. Project implementation would not result in any view blockage of scenic resources and no impacts to scenic vistas would result.

b. Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. There are no designated or eligible State scenic highways located near the project site or within the vicinity.[1] Thus, no impact would result in this regard.

c. In non-urbanized areas, 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?

Less Than Significant Impact. The project site is surrounded in all directions by urbanized uses. As a result, project implementation would not substantially degrade the existing visual character or quality of the site and its surroundings. The following discussion analyzes the project's potential to conflict with applicable zoning and other regulations governing scenic quality.

The project site is located within a commercial and residential area and currently consists of vacant disturbed land; refer to Exhibit 3-3, *Existing Conditions Photographs*. Commercial uses are present to the north, east, south, and west of the project site, including restaurant, retail, and medical uses. To the north and east of the project site are also multi-family and single-family residential uses.

The project proposes two drive-thru restaurant facilities. The proposed Chick-fil-A restaurant would be located at the southern portion of the site, designed with various architectural building elements, and would encompass a maximum height of 22 feet, 6 inches; refer to Exhibit 3-5, *Chick-Fil-A Building Elevations*. The design elements include metal and fabric awnings, three varieties of stucco paint (Grecian Ivory, Studio Taupe, and Grizzle Gray), Hardie trim, and restaurant identification signage. The restaurant would include two 12-foot wide drive-thru lanes (that condense to one 12-foot wide lane) located at the western portion of the project site, wrapping around three sides of the building, exiting along the eastern portion of the building; refer to Exhibit 3-4, *Conceptual Site Plan*.

The In-N-Out Burger restaurant would be located in the northern portion of the project site and designed with various architectural building elements at a maximum height of 28 feet (the County's zoning for the project site allows a maximum building height of 35 feet); refer to Exhibit 3-6, *In-N-Out Building Elevations*. Proposed architectural features would include PVC and polyester awnings, two stucco paint colors (Bone China white for the building and Hot Jazz for the red bands around the building), Terra Cotta eagle tile roof (Capistrano style), and restaurant identification signage. The restaurant would include an 11-foot wide drive-thru lane located at the eastern portion of the project site, which would wrap around two sides of the building, exiting along the northwestern corner of the building; refer to Exhibit 3-4.

As discussed in Section 3.0, *Project Description*, trees (such as Mexican Fan Palm, California Fan Palm, Australian Willow, Chaste Tree, Mexican Palo Verde, Sweet Bay, and Holly Oak), grasses, crushed stone, and shrubs would align the boundary of the project site and drive-

[1] California Department of Transportation, *California Scenic Highway Mapping System*, http://www.dot.ca.gov/hq/LandArch/16_livability/ scenic_highways/, accessed September 14, 2016.

thru lanes, and would be incorporated in the parking lot medians (refer to Exhibit 3-4). One access driveway is located on Ponderosa Street and two access driveways are located on North Tustin Avenue. The proposed parking would consist of a total of 104 surface parking spaces.

Per the Orange County Zoning Map, the project site is zoned 100-C1-10000(H) (Local Business), which allows for development and maintenance of medium-intensity commercial uses serving the needs of both the surrounding neighborhood and the local community. As a result, no amendment to the County Zoning Code would be required as part of the project; refer to Section 4.11, *Land Use and Planning*. The existing developed character of the project site and surrounding area include community- and highway-serving commercial uses adjacent to multi- and single-family residential uses. Project implementation would not alter the existing character experienced in the project area. Moreover, the site was previously developed with commercial uses. Although sited near existing residential uses located to the east of the site across Ponderosa Street, the proposed project would be consistent with the commercial uses immediately to the north and south; refer to the land use consistency analysis in Section 4.11. The proposed project would also be consistent with the County General Plan designation and zoning for the site. The project would be subject to County Municipal Code Section 7-9-84, *C1 "Local Business" District Regulations*, and would be designed in conformance with the County's standards of design. All sidewalks, concrete curbs and gutters, landscaping, street lights, pavements, and utility improvements would be required to be installed and conform to grades and specifications established by the County Engineer. The proposed landscaping would also be subject to the requirements of Municipal Code Section 7-9-133, *Landscape and Irrigation*.

The project site adjoins the cities of Santa Ana and Tustin. According to the Santa Ana General Plan, the project site is located to the north of a designated gateway area, and along a secondary street corridor (17th Street per Figure 4, *Scenic Corridors Plan*, of the Santa Ana General Plan). Chapter 5, *Downtown Public Urban Design Guidelines*, of the City's *Citywide Design Guidelines*, states that gateways provide a sense of arrival and provide a sense of character of the community. Although the project is not subject to the City of Santa Ana's gateway design guidelines, the project would be designed to create a high quality visual environment for the public through its provision of architectural features and design elements, lighting features, trees, and other landscaping; refer to the discussion above. As a result, the project would be generally consistent with the physical elements of the gateway, including building architecture, paving materials, and landscape planting materials. Thus, with adherence to County Municipal Code Sections 7-9-84 and 7-9-133, the proposed project would not conflict with applicable zoning and other regulations governing scenic quality and impacts would be less than significant.

d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact. The project site is currently vacant with minimal lighting provided along the adjacent roadways. The lighting at the project site would include buildings, parking lots, and security lighting that would be in use during the long-term operations phase. Standard Condition LG01 would ensure that all exterior lighting is confined to the property, avoiding disturbance to adjoining uses. Construction activities would occur during the permitted hours of construction as allowed by the County Municipal Code and nighttime construction activities would not occur. Therefore, the project would not create a new source

of substantial light or glare which would adversely affect day or nighttime views in the area. Impacts would be less than significant.

Standard Conditions of Approval:

Standard Condition LG01: Prior to issuance of any Building Permit, the Applicant shall demonstrate that all exterior lighting has been designed and located so that all direct rays are confined to the property in a manner meeting the approval of the Manager, OC Development Services/Planning.

REFERENCES

California Department of Transportation, *California Scenic Highway Mapping System*, http://www.dot.ca.gov/hq/LandArch/16_livability/ scenic_highways/, accessed September 14, 2016.

City of Santa Ana, *Citywide Design Guidelines*.

County of Orange, *Codified Ordinances of the County of Orange,* codified through Ordinance No. 16-002, enacted March 15, 2016. (Supplement No. 130).

County of Orange, *County of Orange General Plan*, July 2014.

County of Orange, *Standard Conditions of Approval Manual*, April 2001.

4.2 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 Department 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:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				✓

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?

No Impact. Pursuant to the Farmland Mapping and Monitoring Program for the California Resources Agency, the project site is made up of urban and built-up land.[1] Further, the project site is designated 1B (Suburban Residential) and zoned 100-C1-10000(H) (Local Business) with a Housing Opportunities Overlay. Implementation of the proposed project would replace an existing vacant lot with new restaurants. Thus, the project would not convert prime farmland, unique farmland, or farmland of statewide importance to non-agricultural uses. No impact would occur in this regard.

[1] State of California Department of Conservation, *Farmland Mapping and Monitoring Program*, http://maps.conservation.ca.gov/ciff/ciff.html, accessed September 9, 2016.

b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. As stated in Response 4.2(a), the project site is zoned 100-C1-10000(H) (Local Business) with a Housing Opportunities Overlay. The existing zoning does not include any agricultural-related zoning designations, nor is the site part of a Williamson Act contract. Additionally, the land uses surrounding the project area are not zoned for agricultural uses or in a Williamson Act contract. Therefore, project implementation would not conflict with existing zoning for agricultural use, or a Williamson Act contract and no impact would occur in this regard.

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))?

No Impact. The project site is not occupied by or used for forest land or timberland purposes and is not zoned Timberland Production. Further, project implementation would not result in the rezoning of forest land, timberland, or timberland zoned Timberland Production. Therefore, no impact to forest land or timberland would occur as a result of the proposed project.

d. Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The project site is not occupied by or used for forest land. Therefore, no impact to forest land would occur as a result of the proposed project.

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?

No Impact. Refer to Responses 4.2(a) through 4.2(d). As the project site occurs within a commercial area, implementation of the proposed project would not result in the conversion of designated farmland or forest land to non-agricultural/non-forest land use and no impacts would occur in this regard.

REFERENCES

County of Orange, *Codified Ordinances of the County of Orange,* codified through Ordinance No. 16-002, enacted March 15, 2016. (Supplement No. 130).

State of California Department of Conservation, *Farmland Mapping and Monitoring Program*, http://maps.conservation.ca.gov/ciff/ciff.html, accessed September 9, 2016.

4.3 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:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?			✓	
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?			✓	

a. Conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. Air quality plans describe air pollution control strategies to be implemented by a city, county or regional air district. The primary purpose of an air quality plan is to bring an area that does not attain National ambient air quality standards (NAAQS) and California ambient air quality standards (CAAQS) into compliance pursuant to the Clean Air Act and California Clean Air Act. NAAQS and CAAQS have been established for the following criteria pollutants: ozone (O_3), carbon monoxide (CO), sulfur dioxide, nitrogen dioxide (NO_X), particulate matter less than 10 microns in diameter (PM_{10}), particulate matter less than 2.5 microns in diameter ($PM_{2.5}$), and lead.

The proposed project is located within the South Coast Air Basin (Basin), which is governed by the South Coast Air Quality Management District (SCAQMD). On March 3, 2017, the SCAQMD Governing Board approved the *2016 Air Quality Management Plan* (2016 AQMP), which outlines its strategies for meeting the National Ambient Air Quality Standards NAAQS for $PM_{2.5}$ and O_3. According to the SCAQMD's 2016 AQMP, two main criteria must be addressed in an air quality analysis. Each of the two criteria are discussed below. The current attainment status of the Basin is noted in Table 4.3-1, *South Coast Air Basin Attainment Status*.

Criterion 1

With respect to the first criterion, SCAQMD methodologies require that an air quality analysis for a project include forecasts of project emissions in relation to contributing to air quality violations and delay of attainment.

I. Would the project result in an increase in the frequency or severity of existing air quality violations?

Since the consistency criteria pertain to pollutant concentrations, rather than to total regional emissions, an analysis of the project's pollutant emissions relative to localized pollutant concentrations is used as the basis for evaluating project consistency. As discussed in Impact Question Response 4.3(c), localized concentrations of CO, nitrogen

oxides, PM_{10}, and $PM_{2.5}$ would be less than significant. Therefore, the project would not increase the frequency or severity of existing air quality violations. Because reactive organic gases (ROGs) are not a criteria pollutant, there is no ambient standard or localized threshold for ROGs. Due to the role ROG plays in ozone formation, it is classified as a precursor pollutant and only a regional emissions threshold was established.

Table 4.3-1
South Coast Air Basin Attainment Status

Pollutant	Averaging Time	California Attainment Status	Federal Attainment Status
Ozone (O_3)	1 Hour	Nonattainment	Not Applicable
	8 Hour	Not Applicable	Nonattainment
Particulate Matter (PM_{10})	24 Hour	Nonattainment	Attainment/Maintenance
	Annual Arithmetic Mean	Nonattainment	Not Applicable
Fine Particulate Matter ($PM_{2.5}$)	24 Hour	Nonattainment	Nonattainment
	Annual Arithmetic Mean	Nonattainment	Nonattainment
Carbon Monoxide (CO)	8 Hour	Attainment	Attainment/Maintenance
	1 Hour	Attainment	Attainment/Maintenance
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	Nonattainment	Attainment/Maintenance
	1 Hour	Nonattainment	Attainment/Maintenance
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	Not Applicable	Attainment
	24 Hour	Attainment	Attainment
	3 Hour	Not Applicable	Attainment
	1 Hour	Attainment	Not Applicable

Source: California Air Resources Board, http://www.arb.ca.gov/desig/adm/adm.htm, accessed December 20, 2016.

II. Would the project cause or contribute to new air quality violations?

As discussed in Response 4.3(b), the proposed project would result in emissions that would be below the SCAQMD thresholds. Therefore, the proposed project would not have the potential to cause or affect a violation of the ambient air quality standards.

III. Would the project delay timely attainment of air quality standards or the interim emissions reductions specified in the AQMP?

The proposed project would result in less than significant impacts with regard to localized concentrations during project construction and operations. As such, the proposed project would not delay the timely attainment of air quality standards or 2016 AQMP emissions reductions.

Criterion 2

With respect to the second criterion for determining consistency with SCAQMD and Southern California Association of Governments (SCAG) air quality policies, it is important to recognize that air quality planning within the Basin focuses on attainment of ambient air quality standards at the earliest feasible date. Projections for achieving air quality goals are based on assumptions regarding population, housing, and growth trends. Thus, the SCAQMD's second criterion for determining project consistency focuses on whether or not the proposed project exceeds the assumptions utilized in preparing the forecasts presented in the 2016 AQMP. Determining whether or not a project exceeds the assumptions reflected in the 2016 AQMP

involves the evaluation of the three factors outlined below. The following discussion provides an analysis of each of these criteria.

I. Would the project be consistent with the population, housing, and employment growth projections utilized in the preparation of the AQMP?

A project is consistent with the 2016 AQMP in part if it is consistent with the population, housing, and employment assumptions that were used in the development of the AQMP. In the case of the 2016 AQMP, three sources of data form the basis for the projections of air pollutant emissions: the *County of Orange General Plan*, dated July 2014 (County General Plan), SCAG's *Growth Management* Chapter of the *Regional Comprehensive Plan and Guide* (RCPG), and SCAG's *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy* (RTP/SCS). The RTP/SCS also provides socioeconomic forecast projections of regional population growth.

The project site is designated as Suburban Residential (1B) by the County General Plan and is zoned 100-C1-10000(H) (Local Business) with a Housing Opportunities overlay in the *Orange County Zoning Code* (County Zoning Code). According to the County Zoning Code, "The C1 District is established to provide for the development and maintenance of medium-intensity commercial uses serving the needs of both the surrounding neighborhood and the *local* community." In addition, Section 7-9-84.2 of the County Zoning Code permits restaurants in all C1 districts. As described in Section 3.0, *Project Description*, the project involves the construction of two new drive-thru restaurants at the project site. As such, the proposed project is considered consistent with the anticipated use for the site under the C1 zoning for the project site.

As the project would be consistent with the zoning for the project site, the project would be consistent with the planned use for the site and other locally adopted plans' growth projections. Thus, the proposed project is consistent with the types, intensity, and patterns of land use envisioned for the site vicinity in the County General Plan and RCPG. The population, housing, and employment forecasts, which are adopted by SCAG's Regional Council, are based on the local plans and policies applicable to the County (including the County General Plan); these are used by SCAG in all phases of implementation and review. As the SCAQMD has incorporated these same projections into the 2016 AQMP, it can be concluded that the proposed project would be consistent with the projections.

II. Would the project implement all feasible air quality mitigation measures?

The project's potential impacts on air quality are less than significant even before mitigation based on the SCAQMD's quantitative thresholds. Nonetheless, the project would comply with all applicable regulatory standards as required by the SCAQMD, including dust mitigation per Rule 403, and the emission reduction measures identified in Impact Question Responses 4.3(b) and 4.3(c) below. Therefore, the project would implement all feasible air quality mitigation measures related to its potential impacts. As such, the proposed project meets this 2016 AQMP consistency criterion.

III. Would the project be consistent with the land use planning strategies set forth in the AQMP?

The proposed project would serve to implement various County and SCAG policies. The proposed project is located within a developed portion of unincorporated Orange County and is considered to be a commercial use surrounded by commercial uses. Further, the project is a permitted use under the C1 zoning designation for the site.

In conclusion, project development would not have a significant long-term impact on the region's ability to meet State and Federal air quality standards. Also, the proposed project would be consistent with the goals and policies of the 2016 AQMP for control of fugitive dust. As discussed above, the proposed project's long-term influence would also be consistent with the goals and policies of the 2016 AQMP and is, therefore, considered consistent with the SCAQMD's 2016 AQMP. Development of the project would not conflict with or obstruct implementation of the SCAQMD's 2016 AQMP and therefore, impacts are less than significant.

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?

Less Than Significant Impact.

Criteria Pollutants

Carbon Monoxide (CO). CO is an odorless, colorless toxic gas that is emitted by mobile and stationary sources as a result of incomplete combustion of hydrocarbons or other carbon-based fuels. In cities, automobile exhaust can cause as much as 95 percent of all CO emissions.

CO replaces oxygen in the body's red blood cells. Individuals with a deficient blood supply to the heart, patients with diseases involving heart and blood vessels, fetuses (unborn babies), and patients with chronic hypoxemia (oxygen deficiency) as seen in high altitudes are most susceptible to the adverse effects of CO exposure. People with heart disease are also more susceptible to developing chest pains when exposed to low levels of carbon monoxide.

Ozone (O_3). O_3 occurs in two layers of the atmosphere. The layer surrounding the earth's surface is the troposphere. The troposphere extends approximately 10 miles above ground level, where it meets the second layer, the stratosphere. The stratospheric (the "good" ozone layer) extends upward from about 10 to 30 miles and protects life on earth from the sun's harmful ultraviolet rays. "Bad" O_3 is a photochemical pollutant, and needs volatile organic compounds (VOCs), NO_X, and sunlight to form; therefore, VOCs and NO_X are O_3 precursors. To reduce O_3 concentrations, it is necessary to control the emissions of these ozone precursors. Significant O_3 formation generally requires an adequate amount of precursors in the atmosphere and a period of several hours in a stable atmosphere with strong sunlight. High O_3 concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins.

While O_3 in the upper atmosphere (stratosphere) protects the earth from harmful ultraviolet radiation, high concentrations of ground-level O_3 (in the troposphere) can adversely affect the

human respiratory system and other tissues. O_3 is a strong irritant that can constrict the airways, forcing the respiratory system to work hard to deliver oxygen. Individuals exercising outdoors, children, and people with pre-existing lung disease such as asthma and chronic pulmonary lung disease are considered to be the most susceptible to the health effects of O_3. Short-term exposure (lasting for a few hours) to O_3 at elevated levels can result in aggravated respiratory diseases such as emphysema, bronchitis and asthma, shortness of breath, increased susceptibility to infections, inflammation of the lung tissue, increased fatigue, as well as chest pain, dry throat, headache, and nausea.

Nitrogen Dioxide (NO_2). NO_X are a family of highly reactive gases that are a primary precursor to the formation of ground-level ozone and react in the atmosphere to form acid rain. NO_2 (often used interchangeably with NO_X) is a reddish-brown gas that can cause breathing difficulties at elevated levels. Peak readings of NO_2 occur in areas that have a high concentration of combustion sources (e.g., motor vehicle engines, power plants, refineries, and other industrial operations). NO_2 can irritate and damage the lungs and lower resistance to respiratory infections such as influenza. The health effects of short-term exposure are still unclear. However, continued or frequent exposure to NO_2 concentrations that are typically much higher than those normally found in the ambient air may increase acute respiratory illnesses in children and increase the incidence of chronic bronchitis and lung irritation. Chronic exposure to NO_2 may aggravate eyes and mucus membranes and cause pulmonary dysfunction.

Coarse Particulate Matter (PM_{10}). PM_{10} refers to suspended particulate matter, which is smaller than 10 microns or ten one-millionths of a meter. PM_{10} arises from sources such as road dust, diesel soot, combustion products, construction operations, and dust storms. PM_{10} scatters light and significantly reduces visibility. In addition, these particulates penetrate into lungs and can potentially damage the respiratory tract. On June 19, 2003, the California Air Resources Board (CARB) adopted amendments to the Statewide 24-hour particulate matter standards based upon requirements set forth in the Children's Environmental Health Protection Act (Senate Bill 25).

Fine Particulate Matter ($PM_{2.5}$). Due to recent increased concerns over health impacts related to fine particulate matter (particulate matter 2.5 microns in diameter or less), both State and Federal $PM_{2.5}$ standards have been created. Particulate matter impacts primarily affect infants, children, the elderly, and those with pre-existing cardiopulmonary disease. In 1997, the U.S. Environmental Protection Agency (EPA) announced new $PM_{2.5}$ standards. Industry groups challenged the new standard in court and the implementation of the standard was blocked. However, upon appeal by the EPA, the United States Supreme Court reversed this decision and upheld the EPA's new standards. On January 5, 2005, the EPA published a Final Rule in the Federal Register that designates the Basin as a nonattainment area for Federal $PM_{2.5}$ standards. On June 20, 2002, CARB adopted amendments for Statewide annual ambient particulate matter air quality standards. These standards were revised/established due to increasing concerns by CARB that previous standards were inadequate, as almost everyone in California is exposed to levels at or above the current State standards during some parts of the year, and the Statewide potential for significant health impacts associated with particulate matter exposure was determined to be large and wide-ranging.

Sulfur Dioxide (SO2). SO_2 is a colorless, irritating gas with a rotten egg smell; it is formed primarily by the combustion of sulfur-containing fossil fuels. Sulfur dioxide is often used interchangeably with SO_X and lead. Exposure of a few minutes to low levels of SO_2 can result in airway constriction in some asthmatics.

Volatile Organic Compounds (VOC). VOCs are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not form ozone to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include: carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. VOCs are a criteria pollutant since they are a precursor to O_3, which is a criteria pollutant. The SCAQMD uses the terms VOC and ROG (see below) interchangeably.

Reactive Organic Gases (ROG). Similar to VOCs, ROGs are also precursors in forming ozone and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process. Smog is formed when ROGs and nitrogen oxides react in the presence of sunlight. ROGs are a criteria pollutant since they are a precursor to O_3, which is a criteria pollutant. The SCAQMD uses the terms ROG and VOC interchangeably.

Short-Term Construction Impacts

Short-term air quality impacts are anticipated during construction activities associated with implementation of the proposed project. Temporary air emissions would result from the following activities:

- Earth moving activities (producing particulate [fugitive dust] dust emissions); and
- Grading/construction equipment and the motor vehicles of construction crews (producing exhaust emissions).

Construction activities are anticipated to occur for a six-month period and would consist of demolition, grading, paving, building construction, and architectural coating. Proposed grading activities during construction would consist of approximately 814 cubic yards of balanced cut and fill on-site. No soil import or export is required for the project. No stockpiling of materials would be required off-site. Grading activities would be short-term and would cease following the completion of the construction activities. Mobile source emissions would result from the use of construction equipment such as excavators, graders, dozers, scrapers, tractors, loaders, and backhoes. The assessment of construction air quality impacts considers each of these potential sources.

Construction emissions were estimated using the California Emissions Estimator Model version 2016.3.1 (CalEEMod) based on the construction information compiled for the project. Results of the construction emission modeling are shown in Table 4.3-2, *Construction Air Emissions*. Emitted pollutants would include ROG, CO, NO_X, sulfur oxides (SO_X) PM_{10}, and $PM_{2.5}$. The largest amount of CO and NO_X emissions would occur during the earthwork phase.

PM_{10} and $PM_{2.5}$ emissions would occur from fugitive dust (due to earthwork and excavation) and from construction equipment exhaust. The majority of PM_{10} and $PM_{2.5}$ emissions would be generated by fugitive dust from earthwork or grading activities. Exhaust emissions from grading and construction activities include emissions associated with not only from grading activities but from the transport of machinery and supplies to and from the project site, emissions produced on-site as the equipment is used, and emissions from trucks transporting materials to and from the site.

As depicted in Table 4.3-2, mitigated construction-related emissions would not exceed the established SCAQMD thresholds for criteria pollutants. However, the proposed project would be required to adhere to standard SCAQMD regulations, such as implementing SCAQMD Rules 402 and 403 (see Condition of Approval 4.3-1) which would further reduce construction emissions. Condition of Approval 4.3-1 requires limiting on-site vehicle speeds, shutting down equipment when not in use for extended periods of time, watering or applying nontoxic chemical soil stabilizers to construction areas not in use, and tarping haul trucks. Compliance with Condition of Approval 4.3-1 would ensure adherence to SCAQMD standard regulations, and that impacts are less than significant.

Table 4.3-2
Construction Air Emissions

Emissions Source	Pollutant (pounds/day)[1,2]					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Year 1						
Construction Emissions	1.00	9.62	7.61	0.01	0.95	0.68
Construction Emissions with SCAQMD Rules Applied	1.00	9.62	7.61	0.01	0.84	0.66
SCAQMD Daily Significance Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Threshold Exceeded?	***No***	***No***	***No***	***No***	***No***	***No***
Year 2						
Construction Emissions	8.60	11.44	6.64	0.02	0.54	0.43
Construction Emissions with SCAQMD Rules Applied	8.60	11.44	6.64	0.02	0.54	0.43
SCAQMD Daily Significance Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Threshold Exceeded?	***No***	***No***	***No***	***No***	***No***	***No***

Notes:
1. Emissions were calculated using CalEEMod ((CalEEMod Version 2016.3.1), as recommended by the SCAQMD.
2. Refer to Appendix A, *Air Quality/Greenhouse Gas/Energy Data*, for assumptions used in this analysis.
3. The reduction/credits for construction emissions applied in CalEEMod are based on the application of dust control techniques as required by SCAQMD Rule 403. The dust control techniques include the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces twice daily; cover stock piles with tarps; water all haul roads three times daily; and limit speeds on unpaved roads to 15 miles per hour.

Reactive Organic Gases (ROG) Emissions

In addition to gaseous and particulate emissions, the application of asphalt and surface coatings creates ROG emissions, which are O_3 precursors. In accordance with the methodology prescribed by the SCAQMD, the ROG emissions associated with paving and architectural coating have been quantified with the CalEEMod model. As required by SCAQMD Regulation XI, Rule 1113 – *Architectural Coating,* all architectural coatings for the proposed structures would comply with specifications on painting practices as well as

regulation on the ROG content of paint.[1] ROG emissions associated with the proposed project would be less than significant; refer to Table 4.3-2.

Naturally Occurring Asbestos

Asbestos is a term used for several types of naturally occurring fibrous minerals that are a human health hazard when airborne. The most common type of asbestos is chrysotile, but other types such as tremolite and actinolite are also found in California. Asbestos is classified as a known human carcinogen by State, Federal, and international agencies and was identified as a toxic air contaminant by the California Air Resources Board in 1986. Asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects, and other improvement projects in some localities. Asbestos may be released into the atmosphere due to vehicular traffic on unpaved roads, during grading for development projects, and at quarry operations. All of these activities may have the effect of releasing potentially harmful asbestos into the air. Natural weathering and erosion processes can act on asbestos bearing rock and make it easier for asbestos fibers to become airborne if such rock is disturbed. According to the Department of Conservation Division of Mines and Geology, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report*, dated August 2000, serpentinite and ultramafic rocks are not known to occur within the project area. Thus, there would be no impact regarding naturally occurring asbestos.

Long-Term Emissions

Refer to Section 4.8(b) for a discussion of emissions as a result of existing ongoing remediation activities on-site. The following is an analysis of the project's long-term operational emissions.

Mobile Source Emissions

Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO_X, SO_X, PM_{10}, and $PM_{2.5}$ are all pollutants of regional concern (NO_X and ROG react with sunlight to form O_3 [photochemical smog], and wind currents readily transport SO_X, PM_{10}, and $PM_{2.5}$). However, CO tends to be a localized pollutant, dispersing rapidly at the source.

According to the *Chick-fil-A and In-N-Out at 17th Street and Tustin Avenue in County of Orange Traffic Impact Analysis* (Traffic Impact Analysis) prepared by Michael Baker International, Inc. (dated January 11, 2017) (included in Appendix G, *Traffic Impact Analysis*), the proposed project would generate approximately 3,419 daily trips. Table 4.3-3, *Long-Term Operational Emissions*, presents the anticipated mobile source emissions. As shown in Table 4.3-3, unmitigated emissions generated by vehicle traffic associated with the proposed project

[1] South Coast Air Quality Management District, *Rule 1113. Architectural Coatings,* http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/r1113.pdf, accessed June 26, 2019.

would not exceed established SCAQMD thresholds. Impacts from mobile source air emissions would be less than significant and would not require mitigation.

Area Source Emissions

Area source emissions would be generated from consumer products, architectural coatings, and landscaping. As shown in Table 4.3-3, area source emissions from the proposed project would not exceed SCAQMD thresholds for ROG, NO_X, CO, SO_X, PM_{10}, or $PM_{2.5}$.

Table 4.3-3
Long-Term Operational Emissions

Emissions Source	Pollutant (pounds/day)[1, 2]					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Unmitigated						
Mobile Emissions	10.75	31.31	90.09	0.20	9.00	2.73
Area Source Emissions	0.22	0.00	0.00	0.00	0.00	0.00
Energy Emissions	0.08	0.69	0.58	0.00	0.05	0.05
Total Emissions	***11.05***	***32.00***	***90.67***	***0.20***	***9.05***	***2.78***
SCAQMD Threshold	*55*	*55*	*550*	*150*	*150*	*55*

Notes:
1. Based on CalEEMod modeling results, worst-case seasonal emissions for area and mobile emissions have been modeled.
2. Refer to Appendix A, *Air Quality/Greenhouse Gas/Energy Data*, for assumptions used in this analysis.

Energy Source Emissions

Energy source emissions would be generated as a result of electricity and natural gas (non-hearth) usage associated with the proposed project. The primary use of electricity and natural gas by the project would be for space heating and cooling, water heating, ventilation, lighting, appliances, and electronics. As shown in Table 4.3-3, energy source emissions from the proposed project would not exceed SCAQMD thresholds for ROG, NO_X, CO, SO_X, PM_{10}, or $PM_{2.5}$.

Total Operational Emissions

As indicated in Table 4.3-3, unmitigated operational emissions from the proposed project would not exceed SCAQMD thresholds. Thus, operational air quality impacts would be less than significant.

Air Quality Health Impacts[2]

Adverse health effects induced by criteria pollutant emissions are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, and the number and character of exposed individuals [e.g., age, gender]). In particular, ozone precursors (volatile organic compounds [VOCs] and nitrous oxide [NO_x]) affect air quality on a regional scale. Health effects related to ozone are therefore the product of emissions generated by numerous sources throughout a region. Existing models such as AERMOD, CALINE3, and CALPUFF have limited sensitivity to small changes in criteria pollutant concentrations, and, as such, translating project-generated criteria

[2] In accordance with the California Supreme Court decision for *Sierra Club v. County of Fresno* (S219783), December 24, 2018, this discussion has been included to disclose the potential human health impacts from the project's air emissions.

pollutants to specific health effects or additional days of nonattainment would produce meaningless results. In other words, the project's less than significant increases in regional air pollution from criteria air pollutants would have nominal or negligible impacts on human health.

As noted by the SCAQMD in the *Application of the South Coast Air Quality Management District for Leave to File Brief of Amicus Curiae in Support of Neither Party and [Proposed] Brief of Amicus Curiae* (SCAQMD Amicus Brief, 2015) for the Supreme Court of California decision for *Sierra Club vs. County of Fresno (Friant Ranch L.P.)*, the SCAQMD acknowledged it would be extremely difficult, if not impossible to quantify health impacts of criteria pollutants for various reasons including modeling limitations as well as where in the atmosphere air pollutants interact and form. Furthermore, as noted by the San Joaquin Valley Air Pollution Control District (SJVAPCD) in the *Application for Leave to File Amicus Curiae Brief of San Joaquin Valley Unified Air Pollution Control District in Support of Defendant and Respondent, County of Fresno and Real Party of Interest and Respondent, Friant Ranch, L.P* (April 13, 2015), the SJVAPCD has acknowledged that currently available modeling tools are not equipped to provide a meaningful analysis of the correlation between an individual development project's air emissions and specific human health impacts.

Additionally, the SCAQMD acknowledges that health effects quantification from ozone, as an example, is correlated with the increases in ambient level of ozone in the air (concentration) that an individual person breathes. SCAQMD's Brief of Amicus Curiae goes on to state that it would take a large amount of additional emissions to cause a modeled increase in ambient ozone levels over the entire region. The SCAQMD states that based on their own modeling in the SCAQMD's 2012 Air Quality Management Plan, a reduction of 432 tons (864,000 pounds) per day of NO_x and a reduction of 187 tons (374,000 pounds) per day of VOCs would reduce ozone levels at highest monitored site by only nine parts per billion. As such, the SCAQMD concludes that it is not currently possible to accurately quantify ozone-related health impacts caused by NO_x or VOC emissions from relatively small projects (defined as projects with regional scope) due to photochemistry and regional model limitations. Thus, as the project would not exceed SCAQMD thresholds for construction and operational air emissions, the project would have a less than significant impact for air quality health impacts.

Cumulative Construction Impacts

With respect to the proposed project's construction-period air quality emissions and cumulative Basin-wide conditions, the SCAQMD has developed strategies (e.g., SCAQMD Rule 402 and Rule 403) to reduce criteria pollutant emissions outlined in the AQMP pursuant to Federal Clean Air Act mandates (as noted in Response 4.3(c)). As such, the proposed project would comply with SCAQMD Rule 402 and Rule 403 requirements, and implement all feasible mitigation measures (refer to Condition of Approval 4.3-1). Rule 402 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off-site that are applicable to the project. Rule 403 requires that fugitive dust be controlled with the best available control measures in order to reduce dust so that it does not remain visible in the atmosphere beyond the property line of the proposed project. In addition, the proposed project would comply with adopted AQMP emissions control measures. Per SCAQMD rules and mandates, as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 402 and 403 compliance, the implementation of all feasible mitigation measures, and compliance with adopted AQMP

emissions control measures) would also be imposed on construction projects throughout the Basin, which would include related projects.

Cumulative Long-Term Impacts

As discussed previously, the proposed project would not result in long-term air quality impacts, as emissions would not exceed the SCAQMD adopted operational thresholds. Additionally, adherence to SCAQMD rules and regulations would alleviate potential impacts related to cumulative conditions on a project-by-project basis. As a result, the proposed project would not contribute a cumulatively considerable net increase of any nonattainment criteria pollutant. Therefore, cumulative operational impacts associated with implementation of the proposed project would be less than significant.

c. Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses.[3] Examples of these sensitive receptors are residences, schools, hospitals, daycare centers, and places of worship. The California Air Resources Board (CARB) has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

Sensitive receptors near the proposed project include existing residences that adjoin the project site to the east across Ponderosa Street, and adjacent residences to the north, east, and west. In order to identify impacts to sensitive receptors, the SCAQMD recommends addressing localized significance thresholds (LSTs) for construction and operations impacts (stationary sources only). The CO hotspot analysis following the LST analysis addresses localized mobile source impacts.

Localized Significance Thresholds

LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the *Final Localized Significance Threshold Methodology*, dated June 2003 (revised 2008), for guidance. The LST methodology assists lead agencies in analyzing localized impacts associated with project-specific level proposed projects. The SCAQMD provides the LST lookup tables for one, two, and five acre projects emitting CO, NO_X, $PM_{2.5}$, or PM_{10} for 41 different Source Receptor Areas (SRA) throughout the Basin. The project site is located within SRA 17, Central Orange County.

Construction

Based on the SCAQMD guidance on applying CalEEMod to LSTs, the project would disturb approximately three acres of land per day. Therefore, the LST thresholds for two acres were conservatively utilized for the construction LST analysis. As the nearest sensitive uses are

[3] Per the definition in the SCAQMD *Final Localized Significance Threshold Methodology*, revised July 2008, and various SCAQMD Rules (such as Rule 1470, paragraph [b][60]).

approximately 50 feet to the east the project site, the LST value for 25 meters was utilized. Table 4.3-4, *Localized Significance of Construction Emissions*, shows the localized unmitigated and mitigated construction-related emissions. It is noted that the localized emissions presented in Table 4.3-4 are less than those in Table 4.3-2, as localized emissions include only on-site emissions (i.e., from construction equipment and fugitive dust), and do not include off-site emissions (i.e., from hauling activities). As seen in Table 4.3-4, mitigated on-site emissions would not exceed the LSTs for SRA 17.

Table 4.3-4
Localized Significance of Construction Emissions

Source	Pollutant (pounds/day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Year 1				
On-Site Construction Emissions[1]	9.13	7.18	0.86	0.65
On-Site Construction Emissions with SCAMQD Rules Applied[1,2]	9.13	7.18	0.75	0.64
Localized Significance Threshold[3]	115	715	6	4
Thresholds Exceeded?	***No***	***No***	***No***	***No***
Year 2 of Construction				
On-Site Construction Emissions[4]	11.41	6.28	0.43	0.40
On-Site Construction Emissions with SCAQMD Rules Applied[2,4]	11.41	6.28	0.43	0.40
Localized Significance Threshold[2]	115	715	6	4
Thresholds Exceeded?	***No***	***No***	***No***	***No***

Note:
1. The grading phase emissions are presented as the worst-case scenario for NO_x, CO, PM_{10}, and $PM_{2.5}$.
2. The reduction/credits for construction emissions applied in CalEEMod are based on the application of dust control techniques as required by SCAQMD Rule 403. The dust control techniques include the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces twice daily; cover stock piles with tarps; water all haul roads three times daily; and limit speeds on unpaved roads to 15 miles per hour.
3. The Localized Significance Threshold was determined using Appendix C of the SCAQMD *Final Localized Significant Threshold Methodology* guidance document for pollutants NO_X, CO, PM_{10}, and $PM_{2.5}$. The Localized Significance Threshold was based on the anticipated daily acreage disturbance for construction, the total acreage for operational, the distance to sensitive receptors, and the source receptor area (SRA 17).
4. The paving phase emissions are presented as the worst-case scenario for NO_x, CO, PM_{10}, and $PM_{2.5}$.
5. Refer to Appendix A, *Air Quality/Greenhouse Gas/Energy Data*, for assumptions used in this analysis.

Operations

As seen in Table 4.3-5, *Localized Significance of Operational Emissions*, the project would not produce operational area emissions. Therefore, no operational LST impacts would result.

Table 4.3-5
Localized Significance of Operational Emissions

Source	Pollutant (pounds/day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Operational				
Area Source Emissions	0.00	0.00	0.00	0.00
Localized Significance Threshold[3]	115	715	2	1
Thresholds Exceeded?	***No***	***No***	***No***	***No***

Notes:
1. The Localized Significance Threshold was determined using Appendix C of the SCAQMD *Final Localized Significant Threshold Methodology* guidance document for pollutants NO_X, CO, PM_{10}, and $PM_{2.5}$. The Localized Significance Threshold was based on the anticipated daily acreage disturbance for construction (approximately one acre; therefore the one acre threshold was used) and the source receptor area (SRA 17).

Carbon Monoxide Hotspots

CO emissions are a function of vehicle idling time, meteorological conditions, and traffic flow. Under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels (i.e., adversely affecting residents, school children, hospital patients, the elderly, etc.). Because traffic congestion is highest at intersections where vehicles queue and are subject to reduced speeds, these hot spots are typically produced at intersections. The SCAQMD requires a quantified assessment of CO hotspots when a project increases the volume-to-capacity ratio (also called the intersection capacity utilization) by 0.02 (two percent) for any intersection with an existing level of service LOS D or worse. Per Response 4.16(a), the project would trigger this threshold and the CO hotspot was analyzed.

The Basin is designated as an attainment/maintenance area for the Federal CO standards and an attainment area for State standards. There has been a decline in CO emissions even though vehicle miles traveled on U.S. urban and rural roads have increased. On-road mobile source CO emissions have declined 24 percent between 1989 and 1998, despite a 23 percent rise in motor vehicle miles traveled over the same 10 years. California trends have been consistent with national trends; CO emissions declined 20 percent in California from 1985 through 1997 while vehicle miles traveled increased 18 percent in the 1990s. CO emissions have continued to decline since this time. The Basin was re-designated as attainment in 2007, and is no longer addressed in the SCAQMD's AQMP. Three major control programs have contributed to the reduced per-vehicle CO emissions: exhaust standards, cleaner burning fuels, and motor vehicle inspection/ maintenance programs.

A detailed CO analysis was conducted in the *Federal Attainment Plan for Carbon Monoxide* (CO Plan) for the SCAQMD's *2003 Air Quality Management Plan*. The 2003 *Air Quality Management Plan* is the most recent AQMP that addresses CO concentrations. The locations selected for microscale modeling in the CO Plan are worst-case intersections in the Basin and would likely experience the highest CO concentrations. Thus, CO analysis within the CO Plan is utilized in a comparison to the proposed project, since it represents a worst-case scenario with heavy traffic volumes within the Basin.

Of these locations, the Wilshire Boulevard/Veteran Avenue intersection in Los Angeles experienced the highest CO concentration (4.6 parts per million [ppm]), which is well below the 35 parts per million (ppm) 1-hr CO Federal standard. The Wilshire Boulevard/Veteran Avenue intersection is one of the most congested intersections in Southern California with an average daily traffic (ADT) volume of approximately 100,000 vehicles per day. According to the Orange County Transportation Authority (OCTA) *2018 Traffic Flow Map*, the highest ADTs in the project vicinity are experienced along North Tustin Avenue (36,000 ADT).[4] As CO hotspots were not experienced at the Wilshire Boulevard/Veteran Avenue intersection (with 100,00 ADT), it can be reasonably inferred that CO hotspots would not be experienced at any intersections near the project site due to low volume of existing traffic volumes (a maximum of 36,000 ADT along North Tustin Avenue), and the project's nominal contribution of traffic (3,419 daily trips) to this condition. Therefore, CO hotspot impacts would be less than significant in this regard.

[4] Orange County Transportation Authority, *2018 Traffic Flow Map*, https://www.octa.net/pdf/2018-ADT.pdf, accessed March 1, 2019.

On-Site Vehicle Idling

The proposed Chick-fil-A restaurant would have two drive-thru lanes designed to accommodate 30 vehicles, and the In-N-Out restaurant would have a single drive-thru lane for 14 vehicles; therefore it is estimated that a total of 44 vehicles or more could be queuing at the drive-thru lanes at one time. As noted above in the CO Plan, the Wilshire Boulevard/Veteran Avenue intersection in Los Angeles (with over 100,000 ADT) experienced a CO concentration of 4.6 ppm, which is well below the 35 ppm 1-hr CO Federal standard. As such, it can be reasonably inferred that the number of vehicles queuing at the project's drive-thru lanes (44) and daily trip generation (3,419 daily trips) would not have the potential to create a CO hotspot and/or exceed the 1-hour CO Federal standard. As such, impacts would be less than significant in this regard.

Air Quality Health Impacts

As evaluated above, the project's localized emissions would not exceed the SCAQMD's LSTs of significance. Therefore, the project would not exceed the most stringent applicable Federal or State ambient air quality standards for emissions of CO, NO_X, PM_{10}, or $PM_{2.5}$, which were developed to represent levels at which the most susceptible persons (children and the elderly) are protected from health effects. In other words, the ambient air quality standards are purposefully set in a stringent manner to protect sensitive populations with respiratory problems (e.g., children, the elderly, etc.). Thus, the project's localized emissions would not create an air quality health impact, and a less than significant impact would occur in this regard.

d. Create objectionable odors affecting a substantial number of people?

Less Than Significant Impact. According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed project does not include any of these uses or odor sources. However, due to the nature of the proposed project (restaurant), there is the potential for uses within the immediate area to experience odors associated with restaurant operations. The project would be required to comply with SCAQMD Rules 402, which prohibits discharge from any source of air contaminants that cause nuisance or annoyance to any considerable number of persons or to the public, and 1138, which requires the testing of specific cooking devices, a catalytic oxidizer control device, or other control device or method found to be as or more effective, etc. Compliance with SCAQMD Rules 402 and 1138 would further ensure potential restaurant-related odors during operation would not create objectionable odors affecting a substantial number of people. Impacts would be less than significant in this regard.

Construction activity associated with the project may generate detectable odors from heavy-duty equipment exhaust. Construction related odors would be short-term in nature and cease upon project completion. Any impacts to existing adjacent land uses would be short-term, as previously noted, and are considered less than significant given the project size.

Conditions of Approval:

Condition of Approval 4.3-1: Prior to issuance of any Grading Permit, the Manager, OC Development Services shall confirm that the project stipulates that, in compliance with SCAQMD Rule 402 and Rule 403, excessive fugitive dust emissions shall be controlled by regular watering or other dust prevention measures, as specified in the SCAQMD's Rules and Regulations. In addition, SCAQMD Rule 402 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off-site that are applicable to the project. Implementation of the following measures would reduce short-term fugitive dust impacts on nearby sensitive receptors:

- All active portions of the construction site shall be watered every three hours during daily construction activities and when dust is observed migrating from the project site to prevent excessive amounts of dust;
- Pave or apply water every three hours during daily construction activities or apply non-toxic soil stabilizers on all unpaved access roads, parking areas, and staging areas. More frequent watering shall occur if dust is observed migrating from the site during site disturbance;
- Any on-site stockpiles of debris, dirt, or other dusty material shall be enclosed, covered, or watered twice daily, or non-toxic soil binders shall be applied;
- All grading and excavation operations shall be suspended when wind speeds exceed 25 miles per hour;
- Disturbed areas shall be replaced with ground cover or paved immediately after construction is completed in the affected area;
- Gravel bed trackout aprons (3 inches deep, 25 feet long, 12 feet wide per lane and edged by rock berm or row of stakes) shall be installed to reduce mud/dirt trackout from unpaved truck exit routes;
- On-site vehicle speed shall be limited to 15 miles per hour;
- Visible dust beyond the property line which emanates from the project shall be prevented to the maximum extent feasible;
- All material transported off-site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust prior to departing the job site;
- Reroute construction trucks away from congested streets or sensitive receptor areas;
- Track-out devices shall be used at all construction site access points; and
- All delivery truck tires shall be watered down and/or scraped down prior to departing the job site.

REFERENCES

California Air Resources Board, *Area Designations Maps, State and National*, accessed December 20, 2016.

County of Orange, *County of Orange General Plan*, July 2014.

County of Orange, *Standard Conditions of Approval Manual*, April 2001.

Orange County Transportation Authority, *2018 Traffic Flow Map*, https://www.octa.net/pdf/2018-ADT.pdf, accessed March 1, 2019.

Michael Baker International, *Chick-fil-A and In-N-Out at 17th Street and Tustin Avenue in County of Orange Traffic Impact Analysis*, dated January 11, 2017.

San Joaquin Valley Air Pollution Control District, *Brief of Amicus Curiae*, April 13, 2015.

South Coast Air Quality Management District, *2012 Air Quality Management Plan*, December 7, 2012.

South Coast Air Quality Management District, *2016 Air Quality Management Plan*, March 2017.

South Coast Air Quality Management District, *Brief of Amicus Curiae*, April 6, 2015.

South Coast Air Quality Management District, *CEQA Air Quality Handbook*, November 1993.

South Coast Air Quality Management District, *Final Localized Significance Threshold Methodology*, July 2008.

South Coast Air Quality Management District, *Regulation XI Source Specific Standards,* http://www. aqmd.gov/docs/default-source/rule-book/reg-xi/r1113.pdf?sfvrsn=15, accessed on February 28, 2019.

Southern California Association of Governments, *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)*, April 2016.

Southern California Association of Governments, *Final 2008 Regional Comprehensive Plan*.

4.4 BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 Services?				✓
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 site?			✓	
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				✓
f. Conflict with provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				✓

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?

No Impact. The project site was previously developed with commercial uses. The development has since been demolished and the site lies vacant within an urbanized area and is regularly disked. Further, the project site is not located within a wildlife habitat area identified by Figure VI-4, Wildlife Habitat Areas, of the General Plan. Based on the site's existing condition and its location outside of a designated wildlife habitat area, no endangered, rare, threatened, or special status plant species (or associated habitats) or wildlife species designated by the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), or California Native Plant Society (CNPS) are known to occur on-site. Project implementation would not result in a substantial adverse effect, either directly or through habitat modifications, on any sensitive species. No impact would result in this regard.

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 Services?

No Impact. The project site is highly disturbed as a result of past development and demolition activities, current remediation activities (soil vapor extraction [SVE]), and regular disking activities. Based on the site's existing condition, there is no riparian habitat or other sensitive natural communities present on the project site. Project implementation would not impact any riparian habitat or other sensitive natural community.

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?

No Impact. As discussed in Response 4.4(b), based on the project site's existing condition (no hydrology, soils, or vegetation present that would result in wetlands), there are no State or Federally protected wetlands present on the project site. Project implementation would not impact State or Federally protected wetlands 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 site?

Less Than Significant Impact. No identified wildlife corridors or native wildlife nurseries occur within the boundaries of the project site. The project site is currently fenced and is surrounded by urban land on all sides. Three small trees are located within and along the eastern portion of the project site. These trees could provide nesting opportunities for birds. The Migratory Bird Treaty Act (MBTA) governs the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. Although the project would require removal of these three trees, with compliance with the MBTA, and given the highly disturbed nature of the project site (regular disking activities), project implementation would not interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors. Impacts in this regard would be less than significant.

e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. The project site is vacant and there is no wildlife habitat, sensitive animal, or plant species on the site. As discussed above, three trees are located in the eastern portion of the project site. However, the County does not have a tree preservation policy or ordinance that is applicable to this portion of the County. Therefore, the project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and no impact would occur.

f. Conflict with provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. According to the California Department of Fish and Wildlife's California Regional Conservation Plan's Map[1], the proposed project is located within the Orange County Transportation Authority (OCTA) NCCP Matrix Area but outside the Coastal and Central Subregion, which protects natural communities and species while providing certainty to the public and affected landowners with respect to the location of future development and open space in the Subregions. The OCTA NCCP Matrix Area contains large open areas that could contain coastal sage scrub (CSS) habitat, land with value as corridors, or habitat buffer for CSS, and may include natural communities of conservation value.

Per the NCCP, the project site is not located within one of the sub-regions, the Reserve System, Special Linkage Area, Existing Use Area, or Non-Reserve Area, and does not contain habitat, no impacts related to conflicting with the NCCP would result from project implementation. No other approved local, regional, or State habitat conversation plans apply to the site. Thus, no impacts would occur in this regard.

REFERENCES

California Department of Fish and Wildlife, *California Regional Conservation Plans*, October 2017, https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=68626&inline, accessed March 1, 2019.

Orange County Transportation Authority, *Natural Community Conservation Plan and Habitat Conservation Plan*, July 17, 1996.

[1] California Department of Fish and Wildlife, *California Regional Conservation Plans*, October 2017, https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=68626&inline, accessed March 1, 2019 .

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4.5 CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?				✓
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?			✓	
c. Disturb any human remains, including those interred outside of dedicated cemeteries?		✓		

The information presented in this analysis has been supplemented with the *Cultural Resources Records Search* (Cultural Memorandum) prepared for the proposed project by Rincon Consultants, Inc. (Rincon) (dated February 2, 2017); refer to Appendix B, *Cultural Resources Study*. It should be noted that Rincon also provided a letter, dated May 22, 2019, acknowledging the scope of the 2017 Cultural Memorandum included a search of the Sacred Lands File (SLF) from the Native American Heritage Commission (NAHC) on January 26, 2017 and completed a records search of the California Historical Resources Information System (CHRIS) at the South Central Coast Information Center located at California State University, Fullerton. The results of these efforts are included in the attached technical memorandum. Although the SLF and records search were completed over two years ago, the characteristics of the project site and surrounding area have not changed since that time. The results presented in the 2017 technical memorandum are adequate for the purposes of the current project; refer to Appendix B.

a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

No Impact. A historical resource is defined by Section 15064.5 as: (1) a resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources; (2) a resource included in a local register of historical places; or (3) a resource the lead agency determines to be historically significant. The project site consists of vacant disturbed land, which was formerly developed with a commercial strip mall and gasoline service station. According to Figure VI-11, *Orange County Historical Areas*, of the County General Plan Resources Element, the project site is not designated as a historical area. The project site has not been listed, or been determined eligible for listing, in a local, State, or Federal Register of Historical Resources.[1,2] Further, according to the Cultural Resources Memorandum, only six previous studies and two cultural resources have been conducted within a 0.5-mile radius of the project site and none of these sites are located on-site. Thus, development of the proposed project would not affect a historical resource. Thus, the project would not result in a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the *CEQA Guidelines*. No impacts to historical resources would occur.

1 National Park Service, *National Register of Historic Places Program*, http://www.nps.gov/nr/research/, accessed January 4, 2017.

2 California State Parks Office of Historic Preservation, *California Historic Resources*, Orange County, http://ohp.parks.ca.gov/ListedResources/?view=county&criteria=30, accessed January 4, 2017.

b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less Than Significant Impact. The Resources Element of the County General Plan indicates that there are over 1,600 archaeological sites registered in Orange County, with a high concentration of them located in the southern portion of the County, along the coast, and in creek areas. According to Figure VI-10, *Prehistoric Archaeology*, of the County of Orange General Plan Resources Element, the project site is not located within a general area of sensitivity for prehistorical archaeology. Further, per a search of records maintained by the South Central Coast Information Center at California State University, Fullerton (documented in the Cultural Resources Memorandum) on January 30, 2017, there are no reported resources located on-site.

The project site has been previously disturbed and graded with artificially engineered fill. Based on the *Geotechnical Engineering Investigation Proposed In-N-Out Center NEC of Tustin Avenue and 17th Street, Santa Ana, California* (Soils Report), prepared by Krazan & Associates, Inc. dated May 13, 2013 (refer to Appendix D, *Soils Report* of Appendix E, *Water Quality Management Plan*), the site is generally underlain by artificial fill soils extending to depths of four feet below ground surface (bgs). Based on the proposed grading plan for the project, excavation would extend to a depth of 11 feet bgs. Although the project site is not located within a general area of sensitivity for prehistorical archaeology, grading activities associated with construction of the proposed project would encounter native soils. In the unlikely event that archaeological resources are encountered during project construction, the project would be required to comply with Standard Condition A04, which would ensure that an archaeologist observe grading activities, salvage and catalogue archaeological resources as necessary, and establish procedures for archaeological resource surveillance, as well as procedures for temporarily halting or redirecting work. With compliance with Standard Condition A04, impacts in this regard would be reduced to less than significant levels.

c. Disturb any human remains, including those interred outside of dedicated cemeteries?

Less Than Significant Impact With Mitigation Incorporated. No on-site conditions exist that suggest human remains are likely to be found on the project site. Due to the level of past disturbance on-site, it is not anticipated that human remains, including those interred outside of formal cemeteries, would be encountered during construction activities. If human remains were found, they would require proper treatment, in accordance with applicable laws. State of California Public Resources Health and Safety Code Section 7050.5-7055 describe the general provisions for human remains. Health and Safety Code Section 7050.5 describes the requirements if any human remains are accidentally discovered during excavation of a site. As required by State law, the requirements and procedures set forth in Section 5097.98 of the California Public Resources Code would be implemented, including notification of the County Coroner, notification of the Native American Heritage Commission if required, and consultation with the individual identified by the Native American Heritage Commission to be the “most likely descendant” if required. The most likely descendant would have 48 hours, from when site access is granted, to make recommendations to landowners for the disposition of Native American human remains or grave goods found.

If human remains are found during construction, construction must stop in the vicinity of the find and any area that is reasonably suspected to overlay adjacent remains until the County Coroner has been called out, and the remains have been investigated and appropriate

recommendations have been made for the treatment and disposition of the remains. The project would adhere to Mitigation Measure 4.5-1, which imposes these requirements. Following compliance with existing State regulations and Mitigation Measure 4.5-1, potential impacts to human remains would be reduced to less than significant levels.

County Standard Conditions of Approval:

Standard Condition A04: Prior to the issuance of any Grading Permit, the Applicant shall provide written evidence to the Manager, OC Development Services, that Applicant has retained a County-certified archaeologist, to observe grading activities and salvage and catalogue archaeological resources as necessary. The archaeologist shall be present at the pre-grade conference, shall establish procedures for archaeological resource surveillance, and shall establish, in cooperation with the Applicant, procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the artifacts as appropriate. If the archaeological resources are found to be significant, the archaeological observer shall determine appropriate actions, in cooperation with the project Applicant, for exploration and/or salvage.

Prior to the release of the grading bond the Applicant shall obtain approval of the archaeologist's follow-up report from the Manager, Harbors, Beaches and Parks (HBP)/Coastal and Historical Facilities. The report shall include the period of inspection, an analysis of any artifacts found and the present repository of the artifacts. Applicant shall prepare excavated material to the point of identification. Applicant shall offer excavated finds for curatorial purposes to the County of Orange, or its designee, on a first refusal basis. These actions, as well as final mitigation and disposition of the resources, shall be subject to the approval of the Manager, HBP/Coastal and Historical Facilities. Applicant shall pay curatorial fees if an applicable fee program has been adopted by the Board of Supervisors, and such fee program is in effect at the time of presentation of the materials to the County of Orange or its designee, all in a manner meeting the approval of the Manager, HBP/Coastal and Historical Facilities.

Mitigation Measures:

Mitigation Measure 4.5-1: If human remains are found during earthwork activities, then grading and construction activities shall cease in the vicinity of the find pursuant to State Health and Safety Code Section 7050.5 until the County Coroner has made the necessary findings as to origin and disposition pursuant to Section 5097.98 of the California Public Resources Code. If the remains are determined to be of Native American descent, then the County Coroner shall notify the Native American Heritage Commission within 24 hours.

REFERENCES

California State Parks Office of Historic Preservation, *California Historic Resources*, Orange County, http://ohp.parks.ca.gov/ListedResources/?view=county&criteria=30, accessed January 4, 2017.

County of Orange, *County of Orange General Plan, Resources Element,* July 2014.

County of Orange, *Standard Conditions of Approval Manual,* April 2001.

Krazan & Associates, Inc., *Geotechnical Engineering Investigation Proposed In-N-Out Center NEC of Tustin Avenue and 17th Street, Santa Ana, California*, dated May 13, 2013.

National Park Service, *National Register of Historic Places Program*, http://www.nps.gov/nr/research/, accessed January 4, 2017.

Rincon Consultants, Inc., *Cultural Resources Records Search*, dated February 2, 2017.

4.6 ENERGY

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?			✓	

a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less Than Significant Impact.

Regulatory

California Building Energy Efficiency Standards (Title 24)

The 2016 Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6), commonly referred to as "Title 24," became effective on January 1, 2017. In general, Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The 2016 Title 24 standards are 28 percent more efficient than previous standards for residential development.[1] The standards offer developers better windows, insulation, lighting, ventilation systems, and other features that reduce energy consumption in homes and businesses. Further, the 2019 Building Energy Efficiency Standards, which take effect on January 1, 2020, will promote photovoltaic systems in newly constructed residential buildings. With rooftop solar electricity generation, homes built under the 2019 standards will use about 53 percent less energy than those under the 2016 standards.[2]

California Green Building Standards (CALGreen)

The 2016 California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as CALGreen, went into effect on January 1, 2017. CALGreen requires that new buildings employ water efficiency and conservation, increase building system efficiencies, divert construction waste from landfills, and incorporate electric vehicles charging infrastructure.

1 California Energy Commission, *2016 Energy Standards Overview*, https://www.lgc.org/wordpress/wp-content/uploads/2016/02/2016-Energy-Standards-Overview-California-Energy-Commission.pdf, accessed February 28, 2019.

2 California Energy Commission, *2019 Building Energy Efficiency* Standards, https://www.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf, accessed February 28, 2019.

California Public Utilities Commission Energy Efficiency Strategic Plan

The California Public Utilities Commission (CPUC) prepared an Energy Efficiency Strategic Plan in 2011 with the goal of promoting energy efficiency and a reduction in Greenhouse Gases. Assembly Bill 1109, adopted in 2007, also serves as a framework for lighting efficiency. This bill requires the State Energy Resources Conservation and Development Commission to adopt minimum energy efficiency standards as a means to reduce average statewide electrical energy consumption by not less than 50 percent from the 2007 levels for indoor residential lighting and not less than 25 percent from the 2007 levels for indoor commercial and outdoor lighting by 2018. According to the Energy Efficiency Strategic Plan, lighting comprises approximately one-fourth of California's electricity use while nonresidential sector exterior lighting (parking lot, area, walkway, and security lighting) usage comprises 1.4 percent of California's total electricity use, much of which occurs during limited occupancy periods.[3]

Project Related Sources of Energy Consumption

This analysis focuses on three sources of energy that are relevant to the proposed project: electricity, natural gas, and transportation fuel for vehicle trips associated with new development and for project construction.

The analysis of operational electricity/natural gas usage is based on the CalEEMod modeling results for the project, which quantifies energy use for occupancy. The project's estimated electricity/natural gas consumption is based primarily on CalEEMod's default settings for Orange County, and consumption factors provided by Southern California Edison (SCE) and the Southern California Gas Company (SoCalGas). The results of the CalEEMod modeling are included in Appendix A, *Air Quality/Greenhouse Gas/Energy Data*. The amount of operational fuel consumption was estimated using the California Air Resources Board's Emissions Factor 2014 (EMFAC2014) computer program which provides projections for typical daily fuel usage in Orange County, and the project's annual vehicle miles traveled (VMT) outputs from CalEEMod. The estimated construction fuel consumption is based on the project's construction equipment list timing/phasing, and hours of duration for construction equipment.

The project's estimated energy consumption is summarized in Table 4.6-1, *Project Energy Consumption*. As shown in Table 4.6-1, the project's electricity and natural usage would constitute an approximate 0.002 percent increase and 0.004 percent increase, respectively, over the typical Countywide annual consumption for electricity and natural gas.[4] The project-related vehicle fuel consumption would increase Orange County's consumption by approximately 0.016 percent.[5] It should also be noted that the project's construction energy consumption would be temporary in nature and would result in a nominal increase in Countywide energy consumption over a short duration (approximately six months).

[3] California Public Utilities Commission, *Energy Efficiency Strategic Plan*, January 2011 Update.

[4] The Project increases in electricity and natural gas consumption are compared with the total consumption in Orange County in 2017.

[5] The Project increases in automotive fuel consumption are compared with the projected Countywide fuel consumption in 2018.

Table 4.6-1
Project Energy Consumption

Energy Type	Project Annual Energy Consumption[1]	Orange County Annual Energy Consumption[2]	Percentage Increase Countywide[2]
Electricity Consumption	365 MWh	20,030,546 MWh	0.002 %
Natural Gas Consumption	25,566 therms	5,766,023,027 therms	0.004 %
Fuel Consumption			
▪ Construction (Heavy-Duty Diesel Vehicle) Fuel Consumption[3]	7,905 gallons	155,501,327 gallons	0.005%
▪ Operational Automotive Fuel Consumption[3]	198,787 gallons	1,248,703,310 gallons	0.016 %

Notes:
1. As modeled in CalEEMod version 2016.3.2.
2. Orange County natural gas consumption data source: California Energy Commission, *Gas Consumption by County*, http://www.ecdms.energy.ca.gov/gasbycounty.aspx, accessed February 28, 2019.
3. Project fuel consumption calculated based on CalEEMod results. Countywide fuel consumption is from the California Air Resources Board EMFAC2014 model.

Refer to Appendix A, *Air Quality/Greenhouse Gas/Energy Data*, for detailed model input/output data.

Construction-Related Energy Consumption

Project construction would consume energy in two general forms: (1) the fuel energy consumed by construction vehicles and equipment; and (2) bound energy in construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass.

Fossil fuels used for construction vehicles and other energy-consuming equipment would be used during site clearing, grading, and construction. Fuel energy consumed during construction would be temporary and would not represent a significant demand on energy resources. In addition, some incidental energy conservation would occur during construction through compliance with State requirements that equipment not in use for more than five minutes be turned off. Project construction equipment would also be required to comply with the latest EPA and CARB engine emissions standards. These emissions standards require highly efficient combustion systems that maximize fuel efficiency and reduce unnecessary fuel consumption. Due to increasing transportation costs and fuel prices, contractors and owners have a strong financial incentive to avoid wasteful, inefficient, and unnecessary consumption of energy during construction. There is growing recognition among developers and retailers that sustainable construction is not prohibitively expensive, and that there is a significant cost-savings potential in green building practices and materials.

Substantial reductions in energy inputs for construction materials can be achieved by selecting building materials composed of recycled materials that require substantially less energy to produce than non-recycled materials. The project-related incremental increase in the use of energy bound in construction materials such as asphalt, steel, concrete, pipes and manufactured or processed materials (e.g., lumber and gas) would not substantially increase demand for energy compared to overall local and regional demand for construction materials. It is reasonable to assume that production of building materials such as concrete, steel, etc., would employ all reasonable energy conservation practices in the interest in minimizing the cost of doing business.

As indicated in Table 4.6-1, the project's fuel consumption from construction would be approximately 7,905 gallons, which would increase fuel use in the County by 0.005 percent. As such, construction would have a nominal effect on the local and regional energy supplies.

It is noted that construction fuel use is temporary and would cease upon completion of construction activities. There are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in the region or State. Therefore, construction fuel consumption would not be any more inefficient, wasteful, or unnecessary than other similar development projects of this nature. As such, a less than significant impact would occur in this regard.

Operational Energy Consumption

Transportation Energy Demand

Pursuant to the Federal Energy Policy and Conservation Act of 1975, the National Highway Traffic and Safety Administration (NTSA) is responsible for establishing additional vehicle standards and for revising existing standards. Compliance with Federal fuel economy standards is not determined for each individual vehicle model. Rather, compliance is determined based on each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the United States. Table 4.6-1 provides an estimate of the daily fuel consumed by vehicles traveling to and from the site. As indicated in Table 4.6-1, project operations is estimated to consume approximately 198,787 gallons of fuel per year, which would increase Orange County's automotive fuel consumption by 0.016 percent. The project would not result in any unusual characteristics that would result in excessive operational fuel consumption. Fuel consumption associated with project-related vehicle trips would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region. As such, a less than significant impact would occur in this regard.

Electricity Demand

The project would consume energy for interior and exterior lighting, heating/ventilation and air conditioning (HVAC), refrigeration, electronics systems, appliances, and security systems, among other things. The project would be required to comply with Title 24 Building Energy Efficiency Standards, which provide minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting. Implementation of the Title 24 standards significantly reduces energy usage. Furthermore, the electricity provider, Southern California Edison (SCE), is subject to California's Renewables Portfolio Standard (RPS). The RPS requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020 and to 50 percent of total procurement by 2030. Renewable energy is generally defined as energy that comes from resources, which are naturally replenished within a human timescale such as sunlight, wind, tides, waves, and geothermal heat. The increase in reliance of such energy resources further ensures projects would not result in the waste of the finite energy resources. As indicated in Table 4.6-1, operational energy consumption would represent an approximate 0.002 percent increase in electricity consumption over the current Countywide usage. Therefore, the project would not result in the inefficient, wasteful, or unnecessary consumption of building energy, and impacts in this regard would be less than significant.

As indicated in Table 4.6-1, operational energy consumption would represent an approximate 0.002 percent increase in electricity consumption and a 0.004 percent increase in natural gas consumption over the current Countywide usage. The project would adhere to all Federal,

State, and local requirements for energy efficiency, including the Title 24 standards. Additionally, the project would not result in a substantial increase in demand or transmission service, resulting in the need for new or expanded sources of energy supply or new or expanded energy delivery systems or infrastructure. The project would not result in the inefficient, wasteful, or unnecessary consumption of building energy. As such, a less than significant impact would occur in this regard.

b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less Than Significant Impact. State and local plans for renewable energy and energy efficiency include CPUC's Energy Efficiency Strategic Plan, California Building Energy Efficiency Standards (Title 24), and California Green Building Standards (CALGreen). The project would be required to comply with Title 24 and CALGreen standards. Compliance with Title 24 and CALGreen standards would ensure the project incorporates energy efficient windows, insulation, lighting, ventilation systems, as well as water efficient fixtures and electric vehicles charging infrastructure. Adherence to the CPUC's energy requirements will ensure conformance with the State's goal of promoting energy and lighting efficiency. Therefore, the proposed project would result in less than significant impacts associated with renewable energy or energy efficiency plans.

REFERENCES

California Energy Commission, 2016 Energy Standards Overview, https://www.lgc.org/wordpress/wp-content/uploads/2016/02/2016-Energy-Standards-Overview-California-Energy-Commission.pdf, accessed February 28, 2019.

California Energy Commission, 2019 Building Energy Efficiency Standards, https://www.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf, accessed February 28, 2019.

California Public Utilities Commission, Energy Efficiency Strategic Plan, January 2011 Update.

Orange County electricity consumption data source: California Energy Commission, *Electricity Consumption by County*, http://www.ecdms. energy.ca.gov/elecbycounty.aspx, accessed February 28, 2019.

Orange County natural gas consumption data source: California Energy Commission, *Gas Consumption by County*, http://www.ecdms.energy. ca.gov/gasbycounty.aspx, accessed February 28, 2019.

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4.7 GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 soils, 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 wastewater disposal system where sewers are not available for the disposal of wastewater?				✓
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			✓	

This analysis is based on the *Geotechnical Engineering Investigation Proposed In-N-Out Center NEC of Tustin Avenue and 17th Street, Santa Ana, California* (Soils Report), prepared by Krazan & Associates, Inc. dated May 13, 2013; refer to Attachment D, *Soils Report* of Appendix E, *Water Quality Management Plan*.

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.

No Impact. Southern California, including the project area, is subject to the effects of seismic activity due to the active faults that traverse the area. Active faults are defined as those that have experienced surface displacement within Holocene time (approximately the last 11,000 years) and/or are in a State-designated Alquist-Priolo Earthquake Fault Zone.

No faults were identified on the site by Alquist-Priolo fault zone maps prepared by the California Geological Survey (CGS).[1] The possibility of damage due to ground rupture is considered low since no active faults are known to cross the site. Since no known faults exist in the immediate site vicinity (the closest fault is located approximately 4 miles away; refer to Response 4.6[a][ii]) and the site is not located within an Alquist-Priolo Earthquake Fault Zone, the project would not result in rupture of a known earthquake fault and impacts would not occur in this regard.

ii. Strong seismic ground shaking?

Less Than Significant Impact. Southern California has numerous active seismic faults subjecting residents to potential earthquake and seismic-related hazards. Seismic activity poses two types of potential hazards for residents and structures, categorized either as primary or secondary hazards. Primary hazards include ground rupture, ground shaking, ground displacement, subsidence, and uplift from earth movement. Primary hazards can also induce secondary hazards such as ground failure (lurch cracking, lateral spreading, and slope failure), liquefaction, water waves (seiches), movement on nearby faults (sympathetic fault movement), dam failure, and fires.

As stated above in Response 4.6(a)(*i*), no faults (active, potentially active, or inactive) are known to exist in the immediate site vicinity. However, the County of Orange General Plan states that the proximity of active and potentially active faults in and around Orange County and its degree of urbanization present the risk of structural damage and loss of life due to ground shaking. According to the Soils Report, the San Joaquin, Elsinore, and Newport Inglewood faults are the nearest active faults to the site and are located approximately 4, 10, and 11 miles from the site, respectively. The Newport Inglewood Fault Zone and Whittier Fault Zone are categorized as potentially active according to the County General Plan. The maximum probable earthquake magnitude of the Elsinore Fault Zone is between 6.5 and 7.5 moment magnitude (mw).[2] The maximum probable earthquake magnitude of the Newport-Inglewood Fault Zone is between 6.0 and 7.4 mw.[3] The maximum probable earthquake magnitude of the Whittier Fault Zone is between 6.0 and 7.2 mw.[4] As such, according to the Soils Report, the site would likely be subject to at least one moderate to severe earthquake during its lifetime, as well as periodic to moderate earthquakes.

The proposed project would construct two restaurants on vacant land. Construction of the new restaurants would be conducted in accordance with the County's construction development standards and the California Building Code (CBC) in order to minimize risk of collapse during a seismic event. The CBC includes standards related to soils and foundations, structural design, building materials, and structural testing and inspections. Further, Standard Condition G01, would ensure that the geotechnical report adhere to County rules and regulations set forth in the County Municipal Code and in the correct

1 State of California Department of Conservation, *Regulatory Maps*, http://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=regulatorymaps, accessed September 12, 2016.
2 Southern California Earthquake Data Center, *Significant Earthquakes and Faults, Elsinore Fault Zone*, http://scedc.caltech.edu/significant/elsinore.html, accessed January 4, 2017.
3 Southern California Earthquake Data Center, *Significant Earthquakes and Faults, Newport-Inglewood Fault Zone*, http://scedc.caltech.edu/significant/newport.html, accessed January 4, 2017.
4 Southern California Earthquake Data Center, *Significant Earthquakes and Faults, Whittier Fault Zone*, http://scedc.caltech.edu/significant/whittier.html, accessed January 4, 2017.

format. Adherence to these building requirements and Standard Condition G01 would minimize risks related to seismic ground shaking. Therefore, the project would not expose people or structures to potential adverse effects of strong seismic ground shaking and impacts are less than significant.

iii. Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. Primary seismic shaking can induce ground failure (lurch cracking, lateral spreading, and slope failure), liquefaction, seismically induced water waves (tsunamis and seiches), movement on nearby independent faults (sympathetic fault movement), and dam failure. Liquefaction is a seismic phenomenon in which loose, saturated, granular soils behave similarly to a fluid when subject to high-intensity ground shaking. Liquefaction occurs when three general conditions coexist: 1) shallow groundwater; 2) low density non-cohesive (granular) soils; and 3) high-intensity ground motion. Saturated, loose to medium dense, near surface cohesionless soils exhibit the highest liquefaction potential, while dry, dense, cohesionless soils and cohesive soils exhibit low to negligible liquefaction potential. In general, cohesive soils are not considered susceptible to liquefaction. Effects of liquefaction on level ground include settlement, sand boils, and bearing capacity failures below structures. Dynamic settlement of dry loose sands can occur as the sand particles tend to settle and densify as a result of a seismic event.

According to the California Department of Conservation, County of Orange General Plan (Figures IX-12 and IX-13), and pages 8 and 9 of the Soils Report, the project site is not located within the Seismic Hazard Zone for Liquefaction Potential.[5] Further, the new restaurants would be constructed to CBC standards and subject to Standard Condition G01 that minimize risks. Therefore, the project would not expose people or structures to potential adverse effects due to liquefaction and a less than significant impact regarding seismic-related ground failure, including liquefaction would occur.

iv. Landslides?

No Impact. According to the County of Orange General Plan (Figures IX-12 and IX-13) and Soils Report, the project site and surrounding topography is generally flat and is not located on any slopes. The project would not create substantial slopes or features that increase the landslide potential beyond existing conditions. No impact with regard to landslides would occur.

b. Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. The primary concern in regards to soil erosion or loss of topsoil would be from construction activities associated with the project (e.g., earthwork and grading). Construction activities associated with the project would expose soils to short-term erosion by wind and water. However, construction activities would be subject to compliance with the CBC. In addition, construction of the proposed project would be required to comply the with water quality requirements set forth in the National Pollutant Discharge Elimination

[5] California Department of Conservation, *State of California Seismic Hazard Zones*, Orange Quadrangle, Official Map of Liquefaction Zone Released April 15, 1998, http://gmw.consrv.ca.gov/shmp/download/quad/ORANGE/maps/ozn_ora.pdf, accessed September 12, 2016.

System (NPDES) Storm Water General Construction Permit for construction activities, Standard Condition D01b, Standard Condition D02b, Standard Condition D03a, Standard Condition D04a, Standard Condition D09a, Standard Condition WQ01, Standard Condition WQ03, Standard Condition WQ04, Standard Condition WQ05, and Division 13, *Stormwater Management and Urban Runoff-County Regulations* of the Orange County Municipal Code; refer to Response 4.9(a). Section 4.10, *Hydrology and Water Quality*, includes conditions and requirements related to the reduction or elimination of storm water runoff pollutants. The NPDES Storm Water General Construction Permit requires preparation of a Storm Water Pollution Prevention Plan (SWPPP), which would identify specific erosion and sediment control Best Management Practices (BMPs) that would be implemented to protect storm water runoff during construction activities. Compliance with the applicable NPDES water quality requirements and Standard Conditions would reduce impacts related to substantial soil erosion or the loss of topsoil to a less than significant level.

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?

Less Than Significant Impact. The proposed project site is located within a seismically-active area. As stated within Responses 4.6(a)(2) and 4.6(a)(3), impacts related to liquefaction and other types of ground failures (e.g., landsliding, later spreading, and seismic induced settlement) would be less than significant.

d. Be located on expansive soils, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Less Than Significant Impact. Expansive soils are clay-rich soils that can undergo a significant increase in volume with increased water content and a significant decrease in volume with a decrease in water content. Problems attributed to expansive soils are usually related to improperly designed or constructed foundations. According to the County General Plan, much of Orange County is covered by soil that may cause cracking in concrete foundations and the most prevalent problems stem from clay or expansive soil. However, based on the Soils Report, the project site has a low expansion potential. As stated, the proposed project would be designed and constructed in accordance with CBC requirements, which would minimize any impacts related to expansive soils. Compliance with CBC requirements would result in a less than significant impact regarding expansive soils.

e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal system where sewers are not available for the disposal of wastewater?

No Impact. The project would not involve the use of septic tanks or alternative wastewater disposal systems. Therefore, no impacts would occur regarding septic tanks or alternative wastewater disposal systems.

f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact. The Resources Element of the County General Plan indicates that sub-surface paleontological sites are abundant in the southern portion of

Orange County, along the coast and in creek areas. Registered sites often consist of small outcroppings visible on the surface or encountered during grading. The County has developed maps indicating general areas of sensitivity for paleontological resources based on underlying geological formations. According to Figure VI-9, *Paleontology*, of the County General Plan, the project site is not located within a general area of sensitivity for paleontological resources. Further, the project site was previously disturbed and graded during development of the historical commercial uses, which have since been demolished.

Based on the Soils Report, the site is generally underlain by artificial fill soils extending to depths of four feet bgs. Based on the proposed grading plan for the project, excavation would extend to a depth of 11 feet bgs. Although the project site is not located within a general area of sensitivity for paleontological resources, grading activities associated with construction of the proposed project would encounter native soils. Thus, in the unlikely event that paleontological resources are encountered during project construction, the project would be required to comply with Standard Condition A07, which would ensure that a paleontologist observe grading activities, salvage and catalogue fossils as necessary, and establish procedures for paleontological resource surveillance, as well as procedures for temporarily halting or redirecting work. Therefore, with compliance with Standard Condition A07, impacts involving unknown potential paleontological resources would be reduced to less than significant levels.

Standard Conditions of Approval:

Standard Condition G01: Prior to the issuance of a Grading Permit, the Applicant shall submit a geotechnical report to the Manager, OC Development Services, for approval. The report shall include the information and be in the form as required by the Grading Manual.

Standard Condition A07: Prior to the issuance of any Grading Permit, the project Applicant shall provide written evidence to the Manager, OC Development Services, that Applicant has retained a County certified paleontologist to observe grading activities and salvage and catalogue fossils as necessary. The paleontologist shall be present at the pre-grade conference, shall establish procedures for paleontological resource surveillance, and shall establish, in cooperation with the Applicant, procedures for temporarily halting or redirecting work to permit sampling, identification, and evaluation of the fossils. If the paleontological resources are found to be significant, the paleontologist shall determine appropriate actions, in cooperation with the Applicant, which ensure proper exploration and/or salvage.

Prior to the release of the grading bond the Applicant shall submit the paleontologist's follow up report for approval by the Manager, Harbors, Beaches and Parks (HBP)/Coastal and Historical Facilities. The report shall include the period of inspection, a catalogue and analysis of the fossils found, and the present repository of the fossils. Applicant shall prepare excavated material to the point of identification. The Applicant shall offer excavated finds for curatorial purposes to the County of Orange, or its designee, on a first refusal basis. These actions, as well as final mitigation and disposition of the resources, shall be subject to approval by the HBP/Coastal and Historical Facilities. Applicant shall pay curatorial fees if an applicable fee program has been adopted by the Board of Supervisors, and such fee program is in effect at the time of presentation of the materials to the County of Orange or its designee, all in a manner meeting the approval of the Manager, HBP/Coastal and Historical Facilities.

REFERENCES

California Department of Conservation, *State of California Seismic Hazard Zones*, Orange Quadrangle, Official Map of Liquefaction Zone Released April 15, 1998, http://gmw.consrv.ca.gov/shmp/download/quad/ ORANGE/maps/ozn_ora.pdf, accessed September 12, 2016.

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Southern California Earthquake Data Center, *Significant Earthquakes and Faults, Whittier Fault Zone*, http://scedc.caltech.edu/significant/whittier.html, accessed January 4, 2017.

State of California Department of Conservation, *Regulatory Maps*, http://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=regulatorymaps, accessed September 12, 2016.

4.8 GREENHOUSE GAS EMISSIONS

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				✓

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact.

Global Climate Change

California is a substantial contributor of global greenhouse gases (GHGs), emitting over 400 million tons of carbon dioxide (CO_2) per year.[1] Climate studies indicate that California is likely to see an increase of three to four degrees Fahrenheit over the next century. Methane (CH_4) is also an important GHG that potentially contributes to global climate change. GHGs are global in their effect, which is to increase the earth's ability to absorb heat in the atmosphere. As primary GHGs have a long lifetime in the atmosphere, accumulate over time, and are generally well-mixed, their impact on the atmosphere is mostly independent of the point of emission.

The impact of human activities on global climate change is apparent in the observational record. Air trapped by ice has been extracted from core samples taken from polar ice sheets to determine the global atmospheric variation of CO_2, CH_4, and nitrous oxide (N_2O) from before the start of industrialization (approximately 1750), to over 650,000 years ago. For that period, it was found that CO_2 concentrations ranged from 180 to 300 parts per million. For the period from approximately 1750 to the present, global CO_2 concentrations increased from a pre-industrialization period concentration of 280 to 379 parts per million in 2005, with the 2005 value far exceeding the upper end of the pre-industrial period range.

Regulations and Significance Criteria

The Intergovernmental Panel on Climate Change (IPCC) developed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. It concluded that a stabilization of GHGs at 400 to 450 parts per million CO_2 equivalent[2] (CO_2eq) concentration is required to keep global mean warming below two degrees Celsius, which in turn is assumed to be necessary to avoid significant levels of climate change.

[1] California Environmental Protection Agency, *California Greenhouse Gas Emission Inventory - 2015 Edition*, http://www.arb.ca.gov/cc/inventory/data/data.htm, accessed December 20, 2016.

[2] Carbon Dioxide Equivalent (CO_2eq) – A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential.

Executive Order S-3-05 was issued in June 2005, which established the following GHG emission reduction targets:

- 2010: Reduce GHG emissions to 2000 levels
- 2020: Reduce GHG emissions to 1990 levels
- 2050: Reduce GHG emissions to 80 percent below 1990 levels

Assembly Bill 32 (AB 32) requires that the California Air Resources Board (CARB) determine what the statewide GHG emissions level was in 1990, and approve a statewide GHG emissions limit that is equivalent to that level, to be achieved by 2020. CARB has approved a 2020 emissions limit of 427 million metric tons (MMT) of CO_2eq.

Executive Order B-30-15, which was issued in April 2015, requires statewide GHG emissions to be reduced 40 percent below 1990 levels by 2030. Senate Bill 32 (SB 32), signed into law in September 2016, codifies the 2030 GHG reduction target in Executive Order B-30-15. The bill authorizes CARB to adopt an interim GHG emissions level target to be achieved by 2030. CARB also must adopt rules and regulations in an open public process to achieve the maximum, technologically feasible, and cost-effective GHG reductions.

Due to the nature of global climate change, it is not anticipated that any single development project would have a substantial effect on global climate change. In actuality, GHG emissions from the proposed project would combine with emissions emitted across California, the United States, and the world to cumulatively contribute to global climate change.

In June 2008, the California Governor's Office of Planning and Research published a Technical Advisory, which provides informal guidance for public agencies as they address the issue of climate change in *CEQA* documents.[3] This is assessed by determining whether a proposed project is consistent with or obstructs the 39 Recommended Actions identified by CARB in its *Climate Change Scoping Plan* which includes nine Early Action Measures (qualitative approach). The Attorney General's Mitigation Measures identify areas where GHG emissions reductions can be achieved in order to achieve the goals of AB 32. As set forth in the California Governor's Office of Planning and Research Technical Advisory and in the proposed amendments to the *CEQA Guidelines* Section 15064.4, this analysis examines whether the proposed project's GHG emissions are significant based on a qualitative and performance based standard (Proposed *CEQA Guidelines* Section 15064.4(a)(1) and (2)).

SCAQMD Thresholds

At this time, there is no absolute consensus in the State of California among CEQA lead agencies regarding the analysis of global climate change and the selection of significance criteria. In fact, numerous organizations, both public and private, have released advisories and guidance with recommendations designed to assist decision-makers in the evaluation of GHG emissions given the current uncertainty regarding when emissions reach the point of

[3] Governor's Office of Planning and Research, *CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review*, 2008.

significance. Lead agencies may elect to rely on thresholds of significance recommended or adopted by State or regional agencies with expertise in the field of global climate change.

The SCAQMD has formed a GHG CEQA Significance Threshold Working Group (Working Group) to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. As of the last Working Group meeting (Meeting No. 15) held in September 2010, the SCAQMD is proposing to adopt a tiered approach for evaluating GHG emissions for development projects where SCAQMD is not the lead agency.[4]

With the tiered approach, the project is compared with the requirements of each tier sequentially and would not result in a significant impact if it complies with any tier. Tier 1 excludes projects that are specifically exempt from SB 97 from resulting in a significant impact. Tier 2 excludes projects that are consistent with a GHG reduction plan that has a certified final CEQA document and complies with AB 32 GHG reduction goals. Tier 3 excludes projects with annual emissions lower than a screening threshold. For all non-industrial projects, the SCAQMD proposed a screening threshold of 3,000 $MTCO_2eq$ per year. SCAQMD concluded that projects with emissions less than the screening threshold would not result in a significant cumulative impact.

Tier 4 consists of three options. Under the Tier 4 first option, the SCAQMD initially outlined that the project would be excluded if design features and/or mitigation measures resulted in emissions 30 percent lower than business as usual emissions. However, the Working Group did not provide a recommendation for this approach. Under the Tier 4 second option, the Working Group folded this into the third Option. Under the Tier 4 third option, the project would be excluded if it was below an efficiency-based threshold of 4.8 $MTCO_2eq$ per service population (SP) per year or 3.0 $MTCO_2eq$ per SP for post-2020 projects.[5] Tier 5 would exclude projects that implement offsite mitigation (GHG reduction projects) or purchase offsets to reduce GHG emission impacts to less than the proposed screening level.

GHG efficiency metrics are utilized as thresholds to assess the GHG efficiency of a project on a per capita basis or on a "service population" basis (the sum of the number of jobs and the number of residents provided by a project) such that the project would allow for consistency with the goals of AB 32 (i.e., 1990 GHG emissions levels by 2020 and 2035). GHG efficiency thresholds can be determined by dividing the GHG emissions inventory goal of the State, by the estimated 2035 population and employment. This method allows highly efficient projects with higher mass emissions to meet the overall reduction goals of AB 32, and is appropriate, because the threshold can be applied evenly to all project types (residential or commercial/retail only and mixed use).

As the project involves the development of two drive-thru fast food restaurants, SCAQMD's 2035 3.0 $MTCO_2eq$ per SP per year efficiency-based threshold has been selected as the

4 The most recent SCAQMD GHG CEQA Significance Threshold Working Group meeting was held on September 2010.

5 The project-level efficiency-based threshold of 4.8 $MTCO_2eq$ per SP per year is relative to the 2020 target date. The SCAQMD has also proposed efficiency-based thresholds relative to the 2035 target date to be consistent with the GHG reduction target date of SB 375. GHG reductions by the SB 375 target date of 2035 would be approximately 40 percent. Applying this 40 percent reduction to the 2020 targets results in an efficiency threshold for plans of 4.1 $MTCO_2eq$ per SP per year and an efficiency threshold at the project level of 3.0 $MTCO_2eq$/year.

significance threshold, as it is most applicable to the proposed project.[6] The 3.0 $MTCO_2eq$ per SP per year efficiency-based threshold is obtained by dividing the 2035 statewide reduction target GHG emissions by the 2035 service population/employment, as discussed above. It is noted that this threshold is based on the State's overall population and emissions goals and is supported by substantial evidence provided in the SCAQMD GHG CEQA Significance Threshold Stakeholder Working Group #15 meeting minutes (September 28, 2010) (refer to Appendix A, *Air Quality/Greenhouse Gas/Energy Data*). The 3.0 $MTCO_2eq$ per SP per year threshold is used in addition to the qualitative thresholds of significance set forth below from Section VII of Appendix G to the CEQA Guidelines.

Project-Related Sources of Greenhouse Gases

The proposed project would result in direct and indirect emissions of CO_2, CH_4, and N_2O, and would not result in other GHGs that would facilitate a meaningful analysis. Therefore, this analysis focuses on these three forms of GHG emissions. Direct proposed project-related GHG emissions include emissions from construction activities, area sources, and mobile sources, while indirect sources include emissions from electricity consumption, water demand, and solid waste generation. Operational GHG estimations are based on energy emissions from natural gas usage and automobile emissions. The California Emissions Estimator Model version 2016.3.1 (CalEEMod) relies upon trip data within the *Chick-fil-A and In-N-Out at 17th Street and Tustin Avenue in County of Orange Traffic Impact Analysis* (Traffic Impact Analysis) prepared by Michael Baker International, Inc. (dated January 11, 2017) (included in Appendix G, *Traffic Impact Analysis*), and project-specific land use data to calculate emissions. The proposed project includes the development of two drive-thru fast food restaurants. According to the Traffic Impact Analysis, the proposed project would generate approximately 3,419 daily trips. Therefore, Table 4.8-1, *Estimated Greenhouse Gas Emissions*, presents the estimated CO_2, CH_4, and N_2O emissions of the proposed project. The CalEEMod outputs are contained within the Appendix A, *Air Quality/Greenhouse Gas/Energy Data*.

Direct Proposed Project-Related Sources of Greenhouse Gases

- *Construction Emissions*. Construction GHG emissions are typically summed and amortized over the lifetime of a project (assumed to be 30 years), then added to the operational emissions.[7] As seen in Table 4.8-1, the proposed project would result in 3.29 $MTCO_2eq/yr$ (amortized over 30 years).

- *Area Source*. Area source emissions occur from hearths, architectural coatings, landscaping equipment, and consumer products. The project proposes two drive-thru restaurants totaling approximately 8,644 square feet (gross area) and would not include hearths. Landscaping and consumer products would be limited. Additionally, the primary emissions from architectural coatings are volatile organic compounds, which are relatively insignificant as direct GHG emissions. CalEEMod assumes an architectural coating reapplication rate of 10 percent of the surface area each year,

6 Ibid.

7 The project lifetime is based on the standard 30 year assumption of the South Coast Air Quality Management District (http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-13/ghg-meeting-13-minutes.pdf?sfvrsn=2).

which would further reduce the operational GHG emissions from architectural coatings. As such, area source emissions noted in Table 4.8-1 would be negligible.

- *Mobile Source*. According to the Traffic Impact Analysis, the project would result in approximately 3,419 daily vehicle trips. Based on the default emissions factors, vehicle miles traveled, and project's daily trip generation (3,419 daily trips) input into CalEEMod, the proposed project would directly result in approximately 3,143.13 $MTCO_2eq/yr$ of mobile source-generated GHG emissions; refer to Table 4.8-1.

Indirect Proposed Project-Related Sources of Greenhouse Gases

- *Energy Consumption*. Energy consumption emissions were calculated using CalEEMod and project-specific land use data. Electricity would be provided to the project site via Southern California Edison. The proposed project would indirectly result in 253.09 $MTCO_2eq/yr$ due to energy consumption; refer to Table 4.8-1.

- *Water Demand*. The proposed project's operations would result in a demand of approximately 2.58 million gallons of water per year. Emissions from indirect energy impacts due to water supply would result in 16.61 $MTCO_2eq/yr$; refer to Table 4.8-1.

- *Solid Waste*. Solid waste associated with operations of the proposed project would result in 58.37 $MTCO_2eq/yr$; refer to Table 4.8-1.

As shown in Table 4.8-1, GHG emissions resulting from both construction and operation of the proposed project would result in approximately 3,474.49 MTCO2eq/yr. The majority of people visiting the project site would be customers and a smaller number of vendors. In order to estimate the number of customers and vendors who visit the site, the number of potential project-related daily vehicle trips is divided by two to account for each service population member making one trip to and one trip from the project site; therefore, each project customer and vendor would count for two trips. This is a conservative assumption since each vehicle is assumed to accommodate only one person, whereas many of the vehicles would accommodate more than one person. As cited in the Traffic Impact Analysis, the proposed project would generate approximately 3,419 trips per day (refer to Appendix G). The total number of trips per day is divided by two (1,710 trips per day) to derive the service population attributable to customers and vendors. Therefore, the project service population is 1,710. As shown in Table 4.8-1, dividing the GHG emissions by the project's service population would result in approximately 2.03 $MTCO_2eq$ per SP per year, which is below the 2020 and 2035 significance thresholds (4.8 $MTCO_2eq$ per SP per year, and 3.0 $MTCO_2eq$ per SP per year, respectively). Therefore, the project's contribution of GHG emissions would be less than significant.

Table 4.8-1
Estimated Greenhouse Gas Emissions

Source	CO_2	CH_4		N_2O		Total
	MT/yr[1]	MT/yr[1]	$MTCO_2eq/yr$[2]	MT/yr[1]	$MTCO_2eq/yr$[2]	$MTCO_2eq/yr$[3]
Direct Emissions						
Construction (amortized over 30 years)	3.29	0.00	0.00	0.00	0.00	3.29
Area	0.00	0.00	0.00	0.00	0.00	0.00
Mobile Source	3,138.14	0.19	4.80	0.00	0.00	3,143.13
Energy	252.83	0.01	0.25	0.00	0.00	253.09
Water Demand	14.01	0.10	2.50	0.00	0.00	16.61
Waste	23.01	1.36	34.00	0.00	0.00	58.37
Total Proposed Project-Related Emissions[3]	***3,474.49 $MTCO_2eq/yr$***					
Total Service Population Emissions[4]	***2.03 $MTCO_2eq/yr$[5]***					
Year 2020 Threshold of Significance	***4.8 $MTCO_2eq$ per SP per year***					
Year 2035 Threshold of Significance	***3.0 $MTCO_2eq$ per SP per year***					
Project Exceed Thresholds?	***No***					

Notes:
1. Emissions calculated using California Emissions Estimator Model (CalEEMod Version 2016.3.1).
2. Carbon dioxide equivalent values calculated using the United States Environmental Protection Agency Website, *Greenhouse Gas Equivalencies Calculator*, https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator, accessed January 24, 2017.
3. Totals may be slightly off due to rounding.
4. Service population emissions are based on a service population of 1,710, assuming one trip is made to and from the project site by the anticipated number of customers and vendors (3,419). The service population also conservatively assumes only a single occupant for each trip.
5. The project's total service population emissions were calculated by dividing the total proposed project-related emissions (3,479.49 $MTCO_2eq/yr$) by the service population (1,710); therefore, 3,479.49/1,710 = 2.03.

Refer to Appendix A, *Air Quality/Greenhouse Gas/Energy Data*, for detailed model input/output data.

b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

No Impact. The County of Orange has not established a Climate Action Plan or included specific GHG reduction goals and policies in the General Plan (County of Orange 2005). The quantitative analysis above demonstrates that the project's potential GHG emission are substantially below the target emissions set by SCAQMD in order to comply with the mandates of AB 32. In fact, as the project's construction-related GHG emissions would be below the 3.0 $MTCO_2eq$ per SP per year (year 2020), and 4.8 $MTCO_2eq$ per SP per year (year 2035) thresholds, the project would help the State's GHG reduction goals established by AB 32. Therefore, the proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. No impacts would occur.

REFERENCES

California Energy Commission, *California Greenhouse Gas Emission Inventory - 2015 Edition*, http://www.arb.ca.gov/cc/inventory/data/data.htm, accessed on December 20, 2016.

California Environmental Protection Agency, *California Greenhouse Gas Emission Inventory - 2015 Edition*, http://www.arb.ca.gov/cc/inventory/data/data.htm, accessed December 20, 2016.

Governor's Office of Planning and Research, *CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review*, 2008.

Michael Baker International, *Chick-fil-A and In-N-Out at 17th Street and Tustin Avenue in County of Orange Traffic Impact Analysis*, dated January 11, 2017.

South Coast Air Quality Management District, *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold,* October 2008.

South Coast Air Quality Management District, Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #15, Tuesday, September 28, 2010, http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf?sfvrsn=2.

South Coast Air Quality Management District, Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #13, Wednesday, August 26, 2009, http://www.aqmd.gov/docs/ default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-13/ghg-meeting-13-minutes.pdf?sfvrsn=2.

U.S. Environmental Protection Agency, *Greenhouse Gas Equivalencies Calculator*, https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator, accessed January 24, 2017.

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4.9 HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 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 or loss, injury or death involving wildland fires?				✓

This section is based on the following hazardous materials documentation (refer to Appendix C, *Hazardous Materials Documentation*):

- Stechmann Geoscience, Inc., *Draft Removal Action Workplan Soil and Soil Gas Remediation Vacant Commercial Property with Former Addresses of 13872, 13875 and 13972 N. Tustin Avenue Santa Ana, California EnviroStor ID 60001948 – Site Code 401659* (herein referenced as "RAW"), dated December 9, 2015.

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. Substantial risks associated with hazardous materials are not typically associated with restaurant uses. Minor cleaning products along with the occasional use of pesticides and herbicides for landscape maintenance of the project site are generally the extent of hazardous materials that would be routinely utilized on-site. Thus, as the presence and on-site storage of these materials are common for restaurant uses and would not be stored in substantial quantities (quantities required to be reported to a regulatory agency), impacts in this regard are less than significant.

Limited amounts of some hazardous materials could be used in the short-term construction of the project, including standard construction materials (e.g., paints and solvents), vehicle fuel, and other hazardous materials. The routine transportation, use, and disposal of these materials would be required to adhere to State and local standards and regulations for handling, storage, and disposal of hazardous substances. With compliance with the existing State and local procedures that are intended to minimize potential health risks associated with their use or the accidental release of such substances, impacts associated with the handling, storage, and transport of these hazardous materials during construction would be less than significant.

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?

Less Than Significant Impact With Mitigation Incorporated.

Construction Activities

During project construction, there is a possibility of accidental release of hazardous substances such as petroleum-based fuels or hydraulic fluid used for construction equipment. The level of risk associated with the accidental release of hazardous substances is not considered significant due to the small volume and low concentration of hazardous materials utilized during construction. The construction contractor would be required to use standard construction controls and safety procedures that would avoid or minimize the potential for accidental release of such substances into the environment. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by local, State, and Federal law.

Based on the RAW, an ARCO gas station, a dry cleaner, and various other commercial businesses were previously located on the site from the 1960s until 1997. Both the gas station and dry cleaner facility had documented releases to soil and/or groundwater and were investigated and closed under regulatory supervision by the Orange County Health Care Agency (OCHCA). The ARCO gas station had a gasoline release to soil that was remediated by excavating a large area under the former tanks to a reported depth of 30 feet below ground surface (bgs). The OCHCA issued closure for this case in 1991. The dry cleaner facility had a release of tetrachloroethylene (PCE)[1] that was discovered in 1997. Lower concentrations of trichloroethylene (TCE) were also detected. PCE was detected in soil and soil gas samples. However, as the reported levels were below thresholds at the time, the OCHCA issued closure for this case in 1998.

A Phase II Environmental Site Assessment was prepared in August 2013 and a Supplemental Site Investigation in August 2014 and found elevated PCE concentrations in soil gas and groundwater samples collected across the site. PCE was also detected in soil matrix samples, but in much lower concentrations and below action levels for commercial sites. No gasoline constituents were detected in any of the samples analyzed. Soil on the site is mostly coarse-grained with some interbedded fine-grained layers. First groundwater beneath the site was

[1] Tetrachloroethylene is also known as perchloroethylene (PCE, PERC).

originally encountered around 120 feet bgs, but groundwater levels have dropped almost 30 feet since 2013, most likely due to drought.

The PCE concentrations in shallow soil gas samples from depths of 5 and 15 feet exceeded calculated risk-based cleanup levels called California Human Health Screening Levels (CHHSLs) for commercial land use by considerable margins. The maximum PCE soil gas concentration detected at 5 feet below ground surface was 247 milligrams per liter (µg/l) compared to the PCE commercial CHHSL recommended value of 0.603 µg/l.

The property owner entered into a Voluntary Cleanup Agreement (Docket No. HAS-VCA 13/14-048) with the California Department of Toxic Substances Control (DTSC) in November 2013 to provide regulatory oversight on this project. The project site is currently undergoing soil vapor extraction (SVE). SVE systems install wells to extract contaminant vapors from soil above the water table by applying a vacuum (such as a blower or vacuum pump) to pull vapors out. During this process, the vacuum pulls air and contaminant vapors through the soil to the ground surface for treatment. Treatment of extracted air and contaminant vapors removes harmful levels of contaminants through activated carbon filtration.[2] The chemicals are captured by the carbon while clean air exits to the atmosphere.[3] The goal of SVE at the project site is to minimize or eliminate potential human exposure to PCE and TCE in soil and soil gas on the site.

Based on the DTSC letter, dated October 16, 2017, the SVE system has removed the majority of identified volatile organic compounds (VOCs) (i.e. PCE and TCE) from subsurface soil and the risk-based cleanup goals have been achieved across most of the project site. Although residual contamination may be present on the project site, the SVE system would be decommissioned and removed from the site by the property owner prior to construction. Pursuit to Federal and State regulations enforced by DTSC, the project would require vapor barriers and a passive venting system, as well as continued groundwater and soil vapor monitoring. Vapor barriers with a passive venting system would provide a pathway to allow contaminant vapors to migrate to the exterior of the building rather than entering the building. Thus, customers and employees would not be exposed to residual contaminant vapors inside buildings constructed by the proposed project. Continued groundwater and soil vapor monitoring would demonstrate that vapor intrusion is not occurring and that levels are stable and not increasing over time. Additionally, construction worker exposure to contaminated soils and soil vapors would be minimized during site disturbance activities with implementation of Mitigation Measure 4.9-1. Prior to any site disturbance activities, Mitigation Measure 4.9-1 would require verification soil and soil gas sampling and ensure proper handling procedures of any on-site contaminated soils. Compliance with Federal and State regulations enforced by DTSC, as well as Mitigation Measure 4.9-1, would reduce impacts to less than significant.

Operational Activities

Operational activities would include typical restaurant practices. Minor cleaning products along with the occasional use of pesticides and herbicides for landscape maintenance of the

[2] Filter materials other than activated carbon may be used. In a process called "biofiltration," tiny microbes (bacteria) are added to break down the vapors into gases, such as carbon dioxide and water vapor. Another option is to destroy vapors by heating them to high temperatures.

[3] U.S. Environmental Protection Agency, *A Citizen's Guide to Soil Vapor Extraction and Air Sparging*, September 2012, https://www.epa.gov/sites/production/files/2015-04/documents/a_citizens_guide_to_soil_vapor_ extraction _and_air_sparging.pdf, accessed February 28, 2019.

project site are generally the extent of hazardous materials that would be routinely utilized on-site. However, due to the residual soil, soil gas, and groundwater contamination on-site from a former dry cleaner facility, soil vapor intrusion is a potential risk to future employees/clientele at the proposed restaurant facilities. In order to ensure that customers and employees are not exposed to residual contamination, the project would be required to comply with Federal and State regulations enforced by DTSC. As such, the project would require vapor barriers and a passive venting system, as well as continued groundwater and soil vapor monitoring. As previously discussed, installation of vapor barriers with a passive venting system would ensure that customers and employees are not exposed to vapor contamination inside new buildings. Additionally, continued groundwater and soil vapor monitoring, which would be required by the DTSC through an Operations and Maintenance (O&M) Plan for the remediation process, would demonstrate that vapor intrusion is not occurring and that levels are stable and not increasing over time. The O&M Plan would identify the DTSC's monitoring requirements for the vapor intrusion mitigation system. The O&M Plan would also consider the degree of risk or hazard being mitigated, the building use (i.e., commercial [restaurant]), and the technology used to mitigate vapor intrusion. The O&M Plan would likely include routine vapor and pressure monitoring, routine monitoring of system operations, indoor air quality monitoring, soil vapor monitoring, and/or monitoring for combustible gases. The O&M Plan would also reference or include a contingency plan to be implemented in the event of failure to meet the predetermined performance goals and specifications identified in the O&M Plan, or in response to monitoring data. The contingency plan would include action levels, a decision flowchart regarding specific actions and identification of the parties responsible for implementing these actions. The flowchart would also include notification requirements, response timeframes, and potential trouble-shooting actions. With compliance with Federal and State regulations enforced by DTSC, impacts in this regard would be reduced to less than significant levels.

c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. The project site is not located within one-quarter mile of a school. The nearest school to the project site is Muir Fundamental Elementary School (1951 Mabury Street, Santa Ana), located approximately 0.50-mile to the northwest of the project site. Therefore, the project would not emit hazardous emissions or the handle hazardous or acutely hazardous materials, substances, or wastes within 0.25-mile of an existing or proposed school. No impact would occur.

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?

Less Than Significant Impact With Mitigation Incorporated. Government Code Section 65962.5 requires the DTSC and State Water Resources Control Board (SWRCB) to compile and update a regulatory sites listing (per the criteria of the Section). The California Department of Health Services is also required to compile and update, as appropriate, a list of all public drinking water wells that contain detectable levels of organic contaminants and that are subject to water analysis pursuant to Section 116395 of the Health and Safety Code. Section 65962.5 requires the local enforcement agency, as designated pursuant to Section 18051 of Title 14 of the California Code of Regulations (CCR), to compile, as appropriate, a

list of all solid waste disposal facilities from which there is a known migration of hazardous waste.

The project site is listed by the SWRCB and DTSC.[4] However, as discussed in Responses 4.9(a) and 4.9(b), impacts pertaining to reported releases at the project site would be reduced to less than significant levels with implementation of Mitigation Measure 4.9-1 and compliance with Federal and State regulations enforced by DTSC.

e. For a project located within an airport land use plan or, where such 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 is not located within an airport land use plan and there are no public or private airports or airstrips within two miles of the project site. The nearest airport to the project site is the John Wayne Airport, located at 18601 Airport Way, Santa Ana, approximately 5.5 miles southwest of the project site. Therefore, no impact would occur in this regard.

f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact With Mitigation Incorporated. The proposed project would not physically interfere with an adopted emergency response plan or emergency evacuation plan. Grading activities associated with construction of additional roadway right-of-way and undergrounding of electrical power lines could result in short-term temporary impacts to street traffic along Ponderosa Street, 17th Street, and Tustin Avenue. While temporary partial lane closures may be required, travel along surrounding roadways would remain open and would not interfere with emergency access in the site vicinity. According to the General Plan Safety Element, the County maintains an *Emergency Response Plan*, which consists of both a detailed summary of the Countywide organization and a detailed description of the responsibility of each component agency in time of a disaster. The plan identifies the Orange County Operational Area Emergency Operation Center as being responsible for emergency support and protection. The Orange County Fire Authority (OCFA) provides emergency medical and fire protection support, and the Orange County Sheriff's Department (OCSD) is responsible for coordinating law enforcement and traffic control operations in emergency situations. Additionally, the City of Santa Ana adopted the *Santa Ana Strategic Plan* in 2014, which discusses the topic of emergency evacuation. The project would be required to follow current City of Santa Ana emergency evacuation procedures in the event of an emergency. The project would not affect the existing emergency service operations. As such, impacts in this regard would be less than significant.

Project construction activities could result in short-term temporary impacts to street traffic along Ponderosa Street, 17th Street, and Tustin Avenue. While temporary lane closures may be required, travel along surrounding roadways would remain open and would not interfere with emergency access in the site vicinity. In addition, the project would be required to comply with Mitigation Measure 4.9-2, which requires the project Applicant to notify the OCFA, OCSD,

[4] Department of Toxic Substances Control website, http://www.calepa.ca.gov/SiteCleanup/CorteseList/default.htm, accessed September 10, 2014.

Orange County Transportation Authority (OCTA), as well as Orange County and Santa Ana Public Works Department of construction activities that would impede movement (such as road or lane closures) along Ponderosa Street, 17th Street, and Tustin Avenue. Compliance with Mitigation Measure 4.9-2 would allow for uninterrupted emergency access to evacuation routes. Off-site infrastructure improvements would include the dedication of additional roadway right-of-way for construction of an additional northbound deceleration lane and a dedicated bus turnout lane along Tustin Avenue. Bus stop disruptions may occur during construction of the dedicated bus turnout lane. However, Mitigation Measure 4.9-2 would reduce potential bus stop disruptions during project construction by requiring the project Applicant and the County of Orange to coordinate with OCTA in advance of any construction-related activities that could affect bus operations in the study area. Additionally, the northbound deceleration lane would ensure offsite traffic has adequate roadway right-of-way to safely enter the project site. Thus, impacts in this regard would be reduced to less than significant levels with implementation of Mitigation Measure 4.9-2.

g. Expose people or structures, either directly or indirectly, to a significant risk or loss, injury or death involving wildland fires?

No Impact. According to Figure IX-1, *Fire Hazard Severity Zones*, of the County's General Plan Safety Element, the project site is not located within a Fire Hazard Severity Zone. The project site and surrounding land uses are developed with urban land uses, and do not present a wildland fire hazard. Therefore, no impacts regarding wildland fires would occur.

Mitigation Measures:

Mitigation Measure 4.9-1: Prior to issuance of a grading permit, the Applicant shall retain a qualified Phase II/Site Characterization Specialist to conduct verification soil and soil gas sampling to ensure residual contamination is below the screening values for protection of construction workers published by the California Environmental Protection Agency. Should any samples determine that residual contamination in either soil or soil gas present a risk to construction workers during site disturbance activities, a Construction Contingency Plan shall be developed by an Applicant-retained Phase II/Site Characterization Specialist, submitted to the Manager, OC Development Services, prior to issuance of a grading permit. At a minimum, the Construction Contingency Plan shall include guidance for handling, segregating, and characterizing potentially contaminated soil generated during grading activities in order to minimize impacts to worker safety and the environment. The Plan shall also identify that the Contractor must verify that all exported soils, if any, are not contaminated with hazardous materials above regulatory thresholds in consultation with the Specialist. If export soils are determined to be contaminated above regulatory thresholds, the Specialist shall recommend proper handling, use, and/or disposal of these soils.

Mitigation Measure 4.9-2: At least 48 hours, excluding weekends and holidays, prior to any lane closure, the construction contractor shall notify OCSD, OCFA, OCTA, as well as the Orange County and Santa Ana Public Works Directors, of construction activities that would impede movement (such as road or lane closures) along Ponderosa Street, 17th Street, and Tustin Avenue, to allow for uninterrupted emergency access and maintenance of evacuation routes. Additionally, the project Applicant and the County of Orange shall coordinate with OCTA in advance of any construction-related activities that could affect bus operations in the study area.

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City of Santa Ana, *2014-15 to 2018-19 Santa Ana Strategic Plan*, March 14, 2014, https://www.santa-ana.org/sites/default/files/Documents/StrategicPlanCombined-FullDoc.pdf, accessed March 1, 2019.

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4.10 HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			✓	
c. Substantially alter the existing drainage pattern of the area, including 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;			✓	
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?				✓

This analysis is based on the Hydrology Study Chick-fil-A Restaurant No. 3756 NEC of 17th Street and Tustin Avenue Santa Ana, California (Hydrology Study) and County of Orange/Santa Ana Region Water Quality Management Plan (WQMP), prepared by Joseph C. Truxaw and Associates, Inc., dated September 13, 2017; refer to Appendix D, Hydrology Study, and Appendix E, Water Quality Management Plan. It should be noted that Truxaw also provided a letter, dated June 17, 2019, acknowledging that the results presented in the 2017 analysis are adequate for the purposes of the current project for hydrology and water quality; refer to Appendix D and Appendix E.

a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less Than Significant Impact With Mitigation Incorporated. As part of Section 402 of the Clean Water Act, the U.S. Environmental Protection Agency (EPA) has established regulations under the National Pollution Discharge Elimination System (NPDES) program to control direct stormwater discharges. In California, the State Water Resources Control Board (SWRCB) administers the NPDES permitting program and is responsible for developing NPDES permitting requirements. The NPDES program regulates industrial pollutant

discharges, which include construction activities. The SWRCB works in coordination with the Regional Water Quality Control Boards (RWQCB) to preserve, protect, enhance, and restore water quality. The project site is located within the jurisdiction of the Santa Ana RWQCB.

Short-Term Construction Impacts

Projects that disturb one or more acres of soil, or projects that disturb less than one acre, but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity Construction General Permit Order 2009-0009-DWQ (Construction General Permit). Construction activity subject to this permit includes clearing, grading, and disturbances to the ground such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The project would include grading activity within the 3.32-acre site and would therefore implement the appropriate pollution prevention controls to limit potential impacts on water quality.

In particular, the Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The project would develop and adhere to a SWPPP during all construction activity. The SWPPP would contain elements such as a site map that shows the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the project site. The SWPPP would include Best Management Practices (BMPs) that would protect stormwater runoff. The BMPs would include measures to contain runoff from vehicle washing at the construction site, prevent sediment from disturbed areas from entering the storm drain system using structural controls (i.e., sand bags at inlets), and cover and contain stockpiled materials to prevent sediment and pollutant transport. Implementation of the BMPs would ensure runoff and discharges during the project's construction phase would not violate any water quality standards. The SWPPP would contain a visual monitoring program; and a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs.

The project Applicant would be required to prepare a Notice of Intent (NOI) for submittal to the Santa Ana RWQCB providing notification of intent to comply with the General Construction Permit. Additionally, the SWPPP would be reviewed/approved by the County (or designee), for water quality construction activities on-site. A copy of the SWPPP would be made available and implemented at the construction site at all times. Construction activities would be required to comply with Division 13, *Stormwater Management and Urban Runoff-County Regulations*, of the County Municipal Code. The project would also be required to comply with Standard Conditions WQ04 and WQ05. Standard Condition WQ04 would ensure development of a SWPPP and compliance with applicable water quality controls during construction, and Standard Condition WQ05, which would require an Erosion and Sediment Control Plan (ESCP). Compliance with the NPDES short-term regulatory requirements, Standard Condition WQ04, and Standard Condition WQ05 would reduce short-term construction-related impacts to water quality to a less than significant level.

Long-Term Impacts

The existing storm runoff from the site drains from the north to west and south, to Tustin Avenue and 17th Street, respectively. At 17th Street, surface water runoff drains to an existing municipal curb opening catch basin which conveys stormwater to an underground municipal 36-inch reinforced concrete pipeline within 17th Street. A small portion of the northerly area flows westerly to the municipal curb and gutter at Tustin Avenue. The curb and gutter conveys stormwater to the same curb opening catch basin at 17th Street. The F11, F10, F06, and F05 Reinforced Concrete Trapezoidal Channel owned by the Orange County Flood Control District (OCFCD), a public storm drain system, is accepting the runoff from the site and draining to the Upper Newport Bay and ultimately to the Pacific Ocean.

According to the Hydrology Study, development of the proposed project would increase stormwater runoff by 1.53 cubic feet per second. However, the on-site underground infiltration gallery would be used to contain on-site stormwater runoff on the site for a 24-hour storm event. The stormwater would flow into the catch basins located on-site, treated via a pre-treatment filter, and collected in the infiltration gallery. The stormwater in the infiltration gallery would infiltrate the surrounding gravel and underlying soil. In the event that the infiltration gallery exceeds capacity, the infiltration system would be bypassed and excess stormwater (that exceeding a 24-hour storm event) would flow through an underground pipe, discharging into the existing municipal storm drain system via the curb/gutter along Tustin Avenue.

As discussed in Response 4.9(b), existing soil gas contamination is present on-site and currently undergoing remediation via a soil vapor extraction (SVE) system. Based on the California Department of Toxic Substances Control (DTSC) letter, dated October 16, 2017, the SVE system has removed the majority of identified volatile organic compounds (VOCs) (i.e. PCE and TCE) from subsurface soil and the risk-based cleanup goals have been achieved across most of the project site. Although residual soil gas contamination may be present on the project site, soil contamination is no longer present and proposed infiltration is an acceptable method for storm drainage treatment at the project site.[1]

The project would be regulated under the NPDES Phase I Municipal Stormwater Permits issued by the Santa Ana RWQCB for Orange County.

Since 1990, operators of municipal separate storm sewer systems (MS4) are required to develop a stormwater management program designed to prevent harmful pollutants from impacting water resources via stormwater runoff. The Orange County Stormwater Program (Stormwater Program) is a cooperative of the County of Orange, OCFCD, and all 34 Orange County cities. As the Principal Permittee on the Santa Ana RWQCB NPDES permits, the County guides development and implementation of the Stormwater Program, collaborating regularly with co-permittees to ensure compliance and prevent ocean pollution.

The Stormwater Program's specific water pollutant control elements are documented in the Drainage Area Management Plan (DAMP). The DAMP satisfies the NPDES permit conditions for creating and implementing a stormwater management program. The intent of the DAMP is to reduce pollutant discharges to the maximum extent practicable (MEP) for the protection of water quality at receiving water bodies and the support of designated beneficial uses. The

[1] Telephone correspondence with Robert J. Stechmann, Jr., CEG, CHG, Stechmann Geoscience, Inc., on January 10, 2018.

DAMP contains guidance on both structural and nonstructural BMPs for meeting these goals. With implementation of the DAMP requirements, the project would be required to prepare a WQMP in accordance with the requirements of the non-point source NPDES Permit for Waste Discharge Requirements.

Based on the preliminary WQMP prepared for the project, established Total Maximum Daily Loads (TMDLs) for the project's receiving waters (Upper Newport Bay) include sediment, nutrients, toxins, and fecal coliform. However, non-structural, structural, and treatment control measures would be implemented per the Model Water Quality Management Plan (MWQMP) for Low Impact Development (LID) performance criteria. LID is a stormwater management strategy with goals to mitigate the impacts of increased runoff and stormwater pollution as close to its source as possible. Per the latest LID guidelines for large scale projects, new construction developments must treat stormwater through infiltration, capture and reuse, or biofiltration. According to the WQMP, the selected non-structural measures include education for property owners, tenants, and occupants; activity restrictions; common area landscape management; BMP maintenance; common area litter control; employee training; common area catch basin inspection; and street sweeping private streets and parking lots. Structural measures include storm drain system stenciling and signage; design outdoor hazardous material storage areas to reduce pollutant introduction; design trash enclosures to reduce pollutant introduction; and use efficient irrigation systems and landscape design. Treatment control measures include designing the LID BMPs using the assumed principal unit operations and processes provided of filtration, sorption/ion exchange and volume loss, would be reached by an underground infiltration gallery.

Thus, compliance with the WQMP non-structural, structural, and treatment control measures would reduce long-term operational impacts to water quality to a less than significant level with mitigation incorporated. Further, Standard Condition D01b would require drainage studies to ensure proper drainage and flood control; Standard Condition D02b would ensure proper design of surface drainage and storm drain facilities; Standard Condition D03a would ensure proper consent from the upstream and/or downstream property owners permitting drainage diversions and/or unnatural concentrations; Standard Condition D04a would ensure payment of fees and the construction of the necessary facilities in accordance with the Master Plan of Drainage; Standard Condition D09a would require delineation of the floodplain on the grading plan to ensure proper flood protection; Standard Condition WQ01 would ensure implementation of a WQMP; Standard Condition WQ03 would ensure implementation of the WQMP BMPs and Operations and Maintenance (O&M) Plan for all structural BMPs. Accordingly, with implementation of Standard Conditions, the proposed project would not violate any water quality standards or waste discharge requirements.

b. Substantially deplete groundwater supplies or interfere with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less Than Significant Impact. The project would not substantially deplete groundwater supplies or interfere with groundwater recharge. The project site is vacant and is approximately 100 percent pervious with gravelly soils well suited for infiltration. The proposed project would increase impervious surface area by 78.5 percent. However, the project proposes an on-site infiltration system, which would maintain groundwater infiltration (recharge volume) similar to the existing condition. Although groundwater in Orange County is extracted and used for domestic supply, based on the Removal Action Workplan (RAW) (discussed in Response 4.8(b)), groundwater underlying the project site is not used for

drinking water purposes. Thus, increased hardscape associated with project implementation would not interfere with groundwater recharge such that drinking water supplies would be impacted.

Implementation of the project would not create a substantial demand on groundwater sources and would not significantly change the amount of groundwater available and pumped from local wells. The project does not involve the direct withdrawal of groundwater for municipal use and would not substantially interfere with recharge capabilities. Thus, upon compliance with existing laws and regulations, impacts to groundwater supplies and groundwater recharge would be less than significant.

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?

Less Than Significant Impact. Soil disturbance would temporarily occur during project construction due to earth-moving activities such as excavation, soil compaction and moving, and grading. Disturbed soils can be susceptible to high rates of erosion from wind and rain, resulting in sediment transport via stormwater runoff if construction conditions are not properly controlled. However, as noted in Response 4.10(a), the project would be required to comply with the following:

- Division 13, Stormwater Management and Urban Runoff-County Regulations, of the County Municipal Code;
- Standard Condition D01b;
- Standard Condition D02b;
- Standard Condition D03a;
- Standard Condition D04a;
- Standard Condition D09a;
- Standard Condition WQ01;
- Standard Condition WQ03;
- Standard Condition WQ04;
- Standard Condition WQ05; and
- NPDES Storm Water General Construction Permit for construction activities.

Compliance with the Standard Conditions, County Municipal Code, and NPDES permit requirements, including preparation of a SWPPP, would reduce the potential for sediment-laden runoff discharging from the site. Therefore, project implementation would not substantially alter the existing drainage pattern of the site during the construction process such that substantial erosion or siltation would occur.

Further, upon completion of construction, the proposed condition would result in less runoff leaving the project site than the existing condition due to the on-site infiltration BMP, or implementation of the DAMP and County water pollution regulations, should an alternative storm drain system be implemented in light of Mitigation Measures 4.9-1 and 4.10-1 (refer to Section 4.10, *Hazards and Hazardous Materials*). Thus, no increase in erosion or siltation during operations would result. The project would include the development of two restaurants. Given the nature of the proposed use and urbanized

project setting, long-term operation of the project would not have the potential to result in substantial erosion or siltation off-site. The project would not include large areas of exposed soils that would be subject to runoff; rather, any unpaved areas would be improved with groundcover and landscaping to minimize the potential for erosion/siltation. The project would also be subject to existing requirements of the NPDES (including approval of the project's WQMP), DAMP, and County's water pollution regulations. Thus, impacts in this regard would be less than significant.

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?

Less Than Significant Impact. The project site is generally flat and is located within an urbanized area. The project would construct two restaurants on vacant land resulting in an increase in impervious area by approximately 78.5 percent at the project site over existing conditions. However, the infiltration system would collect on-site stormwater runoff on the project site resulting in less runoff leaving the project site than the existing condition. According to the Hydrology Study, should all on-site storm drain systems fail, the overflow pathway of on-site drainage runoff would be the top at the parkway drains. Overflow runoff would flow to Tustin Avenue. Further, the elevation of habitable buildings would be designed one foot above the 100-year storm event. As noted in Response 4.10(a), the project would comply with Standard Condition D01b, Standard Condition D02b, Standard Condition D03a, Standard Condition D04a, and Standard Condition D09a. Therefore, with adherence to the Standard Conditions, the project would not 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. Less than significant impacts would occur in this regard.

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?

Less Than Significant Impact. As noted in Response 4.10(c)(ii), the project area is generally flat and is currently vacant. Although implementation of the project would result in an increase in impervious area, the proposed stormwater system would collect on-site stormwater at the project site resulting in less runoff leaving the project site than the existing condition. Therefore, the development is not expected to exceed the capacity of the existing/planned stormwater drainage systems. Additionally, the project would not result in a substantial change in topography that would alter or change flow patterns in the project area. As discussed in Response 4.10(a), less than significant impacts related to potential polluted runoff from the site would occur. With implementation of NPDES and Municipal Code regulations, as well as Standard Condition D01b, Standard Condition D02b, Standard Condition D03a, Standard Condition D04a, Standard Condition D09a, Standard Condition WQ01, Standard Condition WQ03, Standard Condition WQ04, and Standard Condition WQ05, impacts would be reduced to less than significant levels in this regard. .

iv. Impede or redirect flood flows?

Less Than Significant Impact. Refer to Response 4.10(c)(ii) and 4.10(c)(iii).

d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact.

Flood Hazard

According to the Flood Insurance Rate Map (FIRM) No. 06059C0164J, Panel 060212, and the County General Plan Flood Hazards Zone map, the project site is located outside of the 100-year flood hazard area.[2] As a result, no impacts would occur in this regard.

Tsunami

A tsunami is a great sea wave, commonly referred to as a tidal wave, produced by a significant undersea disturbance such as tectonic displacement of a sea floor associated with large, shallow earthquakes. The project site is located approximately 12 miles from the Pacific Ocean and is a sufficient distance so as not to be subject to tsunami impacts. As a result, no impacts would occur in this regard.

Seiche

A seiche is an oscillation of a body of water in an enclosed or semi-enclosed basin, such as a reservoir, harbor, lake, or storage tank. The project site is not in the vicinity of a reservoir, harbor, lake, or storage tank capable of creating a seiche. Therefore, no impacts would occur in this regard.

e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No Impact. The Santa Ana River Basin Water Quality Control Plan (Basin Plan) establishes water quality standards for ground and surface waters within the Santa Ana River Basin, which includes the City, and is the basis for the Santa Ana RWQCB's regulatory programs.

The 2014 Sustainable Groundwater Management Act requires local public agencies and groundwater sustainability agencies in high- and medium-priority basins to develop and implement groundwater sustainability plans (GSPs) or prepare an alternative to a GSP. The City is located in the Coastal Plan of Orange County, which is identified as a medium-priority basin and regulated by the Orange County Water District (OCWD).[3] OCWD, in conjunction with the City of La Habra and Irvine Ranch Water District, prepared the Basin 8-1 Alternative, which is functionally equivalent to a GSP and sets forth basin management goals and objectives and describes how the basin is managed, including a description of basin hydrogeology, water supply monitoring programs, management and operation of recharge facilities, water quality protection and management, and natural resource and collaborative watershed programs. Specifically, the proposed project is located within the OCWD Management Area of the Basin. According to the Basin 8-1 Alternative, the Sustainability

[2] Federal Emergency Management Agency, *Flood Insurance Rate Map #06059C0164J, Panel 060212*, Map Revised December 3, 2009, https://msc.fema.gov/portal/search#searchresultsanchor, accessed September 16, 2016.

[3] California Department of Water Resources, *SGMA Basin Prioritization Dashboard*, https://gis.water.ca.gov/app/bp2018-dashboard/p1/, accessed February 19, 2019.

Goal for the OCWD Management Area is to continue to sustainably manage the groundwater basin to prevent conditions that would lead to significant and unreasonable (1) lowering of groundwater levels, (2) reduction in storage, (3) water quality degradation, (4) seawater intrusion, (5) inelastic land subsidence and (6) adverse impacts on hydrologically connected surface water. As indicated in Response 4.10(b), the proposed project would not substantially deplete groundwater supplies or interfere with groundwater recharge. For these reasons, the proposed project is not anticipated to conflict with or obstruct the Sustainability Goal for the OCWD Management Area. Accordingly, with implementation of Standard Conditions, the proposed project would not violate any water quality standards or waste discharge requirements.

Standard Conditions of Approval:

Standard Condition D01b: Prior to the issuance of any Grading Permits, the following drainage studies shall be submitted to and approved by the Manager, OC Development Services:

A. A drainage study of the project including diversions, off-site areas that drain onto and/or through the project, and justification of any diversions; and

B. When applicable, a drainage study evidencing that proposed drainage patterns will not overload existing storm drains; and

C. Detailed drainage studies indicating how the project grading, in conjunction with the drainage conveyance systems including applicable swales, channels, street flows, catch basins, storm drains, and flood water retarding, will allow building pads to be safe from inundation from rainfall runoff which may be expected from all storms up to and including the theoretical 100-year flood.

Standard Condition D02b: Prior to the issuance of any Grading Permits, the Applicant shall in a manner meeting the approval of the Manager, OC Development Services:

1. Design provisions for surface drainage; and

2. Design all necessary storm drain facilities extending to a satisfactory point of disposal for the proper control and disposal of storm runoff; and

3. Dedicate the associated easements to the County of Orange, if determined necessary.

Prior to the issuance of any Certificates of Use and Occupancy, said improvements shall be constructed in a manner meeting the approval of the Manager, Construction.

Standard Condition D03a: Prior to the issuance of any Grading Permit, and if determined necessary by the Manager, OC Development Services, the Applicant shall record a letter of consent, from the upstream and/or downstream property owners permitting drainage diversions and/or unnatural concentrations. The form of the letter of consent shall be approved by the Manager, OC Development Services prior to recordation of the letter.

Standard Condition D04a: Prior to the issuance of any Building Permits, the Applicant shall participate in the applicable Master Plan of Drainage in a manner meeting the approval of the Manager, OC Development Services, including payment of fees and the construction of the necessary facilities.

Standard Condition D09a: Prior to the issuance of any Grading Permits, Applicant shall delineate on the grading plan the floodplain which affects the property, in a manner meeting the approval of the Manager, OC Development Services.

Standard Condition WQ01: Prior to the recordation of any Final Subdivision Map (except those maps for financing or conveyance purposes only) or the issuance of any Grading or Building Permit (whichever comes first), the Applicant shall submit for review and approval by the Manager, Inspection Services Division, a Water Quality Management Plan (WQMP) specifically identifying Best Management Practices (BMPs) that will be used on-site to control predictable pollutant runoff. This WQMP shall identify, at a minimum, the routine structural and non-structural measures specified in the current Drainage Area Management Plan (DAMP). The WQMP may include one or more of the following:

- Discuss regional water quality and/or watershed programs (if available for the project);
- Address Site Design BMPs (as applicable) such as minimizing impervious areas, maximizing permeability, minimizing directly connected impervious areas, creating reduced or "zero discharge" areas, and conserving natural areas;
- Include the applicable Routine Source Control BMPs as defined in the DAMP;
- Demonstrate how surface runoff and subsurface drainage shall be managed and directed to the nearest acceptable drainage facility (as applicable), via sump pumps if necessary.

Standard Condition WQ03: Prior to the issuance of a Certificate of Use and Occupancy, the Applicant shall demonstrate compliance with the WQMP in a manner meeting the satisfaction of the Manager, Inspection Services Division, including:

- Demonstrate that all structural Best Management Practices (BMPs) described in the project's WQMP have been implemented, constructed, and installed in conformance with approved plans and specifications;
- Demonstrate that the Applicant has complied with all non-structural BMPs described in the project's WQMP;
- Submit for review and approval an Operations and Maintenance (O&M) Plan for all structural BMPs for attachment to the WQMP;
- Demonstrate that copies of the project's approved WQMP (with attached O&M Plan) are available for each of the incoming occupants;
- Agree to pay for a Special Investigation from the County of Orange for a date (12) twelve months after the issuance of a Certificate of Use and Occupancy for the project to verify compliance with the approved WQMP and O&M Plan; and

- Demonstrate that the Applicant has agreed to and recorded one of the following: 1) the CC&R's (that must include the approved WQMP and O&M Plan) for the project Home Owner's Association; 2) a water quality implementation agreement that has the approved WQMP and O&M Plan attached; or 3) the final approved Water Quality Management Plan (WQMP) and Operations and Maintenance (O&M) Plan.

Standard Condition WQ04: Prior to the issuance of any Grading or Building Permits, the Applicant shall demonstrate compliance under California's General Permit for Stormwater Discharges Associated with Construction Activity by providing a copy of the Notice of Intent (NOI) submitted to the State Water Resources Control Board and a copy of the subsequent notification of the issuance of a Waste Discharge Identification (WDID) Number or other proof of filing in a manner meeting the satisfaction of the Manager, OC Development Services. Projects subject to this requirement shall prepare and implement a Stormwater Pollution Prevention Plan (SWPPP). A copy of the current SWPPP shall be kept at the project site and be available for County review on request.

Standard Condition WQ05: Prior to the issuance of any Grading or Building Permit, the Applicant shall submit an Erosion and Sediment Control Plan (ESCP) in a manner meeting approval of the Manager, OC Development Services, to demonstrate compliance with local and state water quality regulations for grading and construction activities. The ESCP shall identify how all construction materials, wastes, grading or demolition debris, and stockpiles of soil, aggregates, soil amendments, etc. shall be properly covered, stored, and secured to prevent transport into local drainages or coastal waters by wind, rain, tracking, tidal erosion or dispersion. The ESCP shall also describe how the Applicant will ensure that all BMP's will be maintained during construction of any future public rights-of-way. A copy of the current ESCP shall be kept at the project site and be available for County review on request.

REFERENCES

California Department of Water Resources, *SGMA Basin Prioritization Dashboard*, https://gis.water.ca.gov/app/bp2018-dashboard/p1/, accessed February 19, 2019.

County of Orange, *Codified Ordinances of the County of Orange,* codified through Ordinance No. 16-002, enacted March 15, 2016. (Supplement No. 130).

County of Orange, *Drainage Area Management Plan*, July 1, 2003.

County of Orange, *Standard Conditions of Approval Manual,* April 2001.

Federal Emergency Management Agency, *Flood Insurance Rate Map #06059C0164J, Panel No. 060212*, Map Revised December 3, 2009, https://msc.fema.gov/portal/search#searchresultsanchor, accessed September 16, 2016.

Joseph C. Truxaw and Associates, Inc., *Hydrology Study Chick-fil-A Restaurant No. 3756 NEC of 17th St. and Tustin Avenue Santa Ana, California*, September 13, 2017.

Joseph C. Truxaw and Associates, Inc., *County of Orange/Santa Ana Region Water Quality Management Plan*, May 11, 2016.

Stechmann Geoscience, Inc., *Draft Removal Action Workplan Soil and Soil Gas Remediation Vacant Commercial Property with Former Addresses of 13872, 13875 and 13972 N. Tustin Avenue Santa Ana, California EnviroStor ID 60001948 – Site Code 401659* (RAW), September 13, 2017.

Telephone correspondence with Robert J. Stechmann, Jr., CEG, CHG, Stechmann Geoscience, Inc., on January 10, 2018.

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4.11 LAND USE AND PLANNING

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?			✓	

a. Physically divide an established community?

No Impact. Located in unincorporated Orange County, the project site currently consists of vacant land and is surrounded by commercial and residential uses within the County and City of Santa Ana. Per the County Zoning Code, the project site is intended for local business uses. The project proposes the construction of two new drive-thru facilities. The project would not physically divide an established community, as it would not introduce any physical divisions or barriers between the site and surrounding area. Moreover, the site was previously developed with commercial uses. The project would be compatible with existing surrounding uses, which include commercial and residential uses. Thus, no impacts would result in this regard.

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?

Less Than Significant Impact. The project proposes two new drive-thru restaurants. According to the Land Use Element of the County General Plan, the project site's Suburban Residential (1B) designation provides opportunities for neighborhood/convenience commercial uses. Neighborhood/convenience commercial sites are assumed to be consistent with Suburban Residential areas, subject to the Neighborhood Commercial guidelines contained within the Land Use Element. Table 4.11-1, *Neighborhood Commercial Guidelines Consistency Analysis*, analyzes the project's consistency with these guidelines.

Table 4.11-1
Neighborhood Commercial Guidelines Consistency Analysis

Neighborhood Commercial Guideline	Consistency Analysis
1. To encourage the development of commercial activities in centers with unified planning, design, and facilities (such as parking, ingress and egress).	Consistent. The proposed project consists of two drive-thru restaurant facilities, which would be developed with unified planning, design, and facilities. As shown on Exhibit 3-4, *Conceptual Site Plan*, the two restaurants would be located on opposite ends of the project site in order to provide adequate on-site circulation, parking, and drive-thru queuing for each restaurant. The proposed drive-thru lanes would wrap around each restaurant in a manner that would avoid queuing or blocking of parking spaces. Additionally, two ingress/egress driveways would be provided along Tustin Avenue and one full access ingress/egress driveway would be provided along Ponderosa Street to minimize potential bottlenecks or queuing on-site.
2. To locate commercial development at intersections of primary and secondary streets wherever possible. When local commercial development must be located adjacent to major intersections, access should be from the lesser of the two arterials.	Consistent. Based on the *County of Orange General Plan Circulation Plan*, the segment of Tustin Avenue along the project's western frontage is identified as a major arterial and 17th Street is identified as an arterial within County incorporated areas. According to the *City of Santa Ana General Plan Circulation Element*, project-fronting segments of Tustin Avenue and 17th Street are also identified as major arterials. While the project would be sited at the major intersection of Tustin Avenue and 17th Street, the project would construct multiple ingress/egress driveways along Tustin Avenue and Ponderosa Street. Two ingress/egress driveways are proposed along Tustin Avenue, one with full access and the other with right-in/right-out only access. One full access ingress/egress driveway would be provided along Ponderosa Street slightly offset form the existing driveway for the Ponderosa Plaza. Therefore, multiple points on ingress/egress would be provided both along a major arterial (Tustin Avenue) and a smaller local street (Ponderosa Street).
3. To locate commercial development so that wherever possible, it is centrally located within its service area.	Consistent. The two proposed drive-thru restaurants would be located near multi-family residential uses to the north (The Ponderosa) and east, and would serve existing residents in the project area, as well as customers exiting off of 17th Street from State Route 55 (SR-55). The proposed project is sited in an ideal location near residential neighborhoods, other commercial plazas, and SR-55.
4. To locate commercial sites at an optimal distance from regional and community commercial centers.	Consistent. According to the *Orange County General Plan Official Land Use Map*, the closest regional or community commercial center designated area is approximately 2.9 miles to the northeast, east of SR-55 near Chapman Avenue and South Crawford Canyon Road. The project site is not designated by the County as Regional Commercial or Community Commercial. Additionally, the site is located within an unincorporated County island surrounded by the cities of Santa Ana and Tustin. It is acknowledged that the City of Santa Ana has initiated a municipal reorganization application with the Orange County Local Agency Formation Commission (LAFCO) to formally annex the subject site, as well as a surrounding County island into the City. This reorganization is being conducted by the

Table 4.11-1, continued

Neighborhood Commercial Guideline	Consistency Analysis
	City of Santa Ana as a separate project, subject to CEQA with the City of Santa Ana as the lead agency, and is not contemplated as an action under this project. The reorganization would be completed after project approval by the County. Per a Cooperative Agreement between the County and City of Santa Ana, upon the completion of construction of the project under County review and inspection the City would assume full land use authority on the subject site upon the issuance of final certificates of use and occupancy. As part of this reorganization, the City of Santa Ana will designate the site as General Commercial (GC) and the site would then integrate well with other surrounding GC uses to the north, south, and west.
5. To locate, generally, neighborhood commercial centers one mile apart.	Consistent. Refer to Neighborhood Commercial Guideline 4 above. According to the *Orange County General Plan Official Land Use Map*, no neighborhood commercial centers are located within one mile of the project site. As discussed, the site is located within an unincorporated County island surrounded by the cities of Santa Ana and Tustin. It is acknowledged that he City of Santa Ana has initiated a municipal reorganization application with the LAFCO to formally annex the subject site, as well as a surrounding County island into the City. This reorganization is being conducted by the City of Santa Ana as a separate project, subject to CEQA with the City of Santa Ana as the lead agency, and is not contemplated as an action under this project. The reorganization would be completed after project approval by the County. Per a Cooperative Agreement between the County and City of Santa Ana, upon the completion of construction of the project under County review and inspection the City would assume full land use authority on the subject site upon the issuance of final certificates of use and occupancy. As part of this reorganization, the City of Santa Ana will designate the site as GC and the site would then integrate well with other surrounding GC uses to the north, south, and west.
6. To encourage adequate pedestrian and bicycle connections to neighborhoods and adjacent retail and service uses.	Consistent. There are no existing bicycle lanes along adjacent roadways, therefore no bicycle facilities or connections are proposed. However, pedestrian sidewalks are provided along both sides of Tustin Avenue and 17th Street, and along the east side of Ponderosa Street. The proposed development would not impact existing pedestrian sidewalks and would construct sidewalks along the western side of Ponderosa Street adjacent to the project's eastern frontage. Proposed landscaping along the site perimeter, drive-thru lanes, and in the parking lot medians, and outdoor dining areas for both restaurants would also enhance the project's pedestrian environment; refer to Exhibit 3-8, *Conceptual Landscape Plan*.

Table 4.11-1, continued

Neighborhood Commercial Guideline	Consistency Analysis
7. To accommodate all modes of transportation by incorporating appropriate design features and supporting development of a comprehensive trails and bike system.	Consistent. There are no bicycle lanes along adjacent roadways or trails within the project area. Thus, no bicycle or trail connections are proposed. Nevertheless, the project proposes to construct an additional northbound deceleration lane along Tustin Avenue and a dedicated Orange County Transportation Authority bus turnout lane along Tustin Avenue adjacent to the southerly portion of the project site; refer to Exhibit 3-9a and Exhibit 3-9b, *Tustin Avenue Improvements*.
8. To manage parking efficiently and provide easily accessible and well-designed bicycle parking.	Consistent. The project would not provide dedicated bicycle parking on-site. However, it would provide 55 vehicle parking spaces for In-N-Out Burger and 41 vehicle parking spaces for Chick-fil-A as well as sufficient space to park a bicycle. The proposed site plan would allow efficient on-site circulation, including adequate queuing storage and shared parking for both drive-thru restaurants.
9. To set a general standard of one acre of commercial development per 1,000 people in the service area. Because there are no absolute criteria for neighborhood commercial acreage needed to adequately service a given number of people, this standard should be tempered by the character of each particular area.	Consistent. While a quantified service population is not available for the proposed project, the two drive-thru restaurants would likely serve a large number of existing residents and visitors in the project area. Given the nature of drive-thru restaurants, it is likely that the proposed facilities would serve many vehicular customers passing by the site along adjacent roadways or existing off 17th Street from SR-55.
10. To set a general standard of three to ten acres for neighborhood commercial developments.	Consistent. The proposed neighborhood commercial development is approximately 3.32-acres in size.
11. To require the developer of a commercial center to provide a statistical demand analysis of the market service area at the time of the zoning request in order to assist in determining its adequacy and appropriateness.	Not Applicable. Although the project proposes commercial uses, the project does not propose construction of a new commercial center. Thus, a statistical demand analysis of the market service area is not required.
12. To review regularly and evaluate excessive undeveloped commercial zoning for its appropriateness and its ability to serve the County.	Consistent. The project site is currently undeveloped and zoned 100-C1-10000(H) (Local Business) under the *Orange County Zoning Map*. The proposed project would construct two drive-thru restaurants on an undeveloped commercially zoned site, thereby, eliminating the site as an excessive undeveloped commercial area.

As indicated in Table 4.11-1, the project would be consistent with the County's Neighborhood Commercial guidelines; thus, the project would be consistent with Suburban Residential areas. No amendment to the County General Plan would be required as part of the project.

The County Zoning Code is adopted in order to achieve several objectives and implement the Land Use Element of the County General Plan. The zoning code provides a guide for the growth and development of the County, establishes conditions which allow land uses to exist in harmony within the community, and promotes the stability of existing land uses to protect them from incompatible and harmful intrusion. The project site is zoned 100-C1-10000(H) (Local Business) with a Housing Opportunities Overlay, which allows for the development and maintenance of medium-intensity commercial uses serving the needs of both the surrounding neighborhood and the local community. Therefore, no amendment to the County Zoning Code would be required as part of the project. The grading and building components of the project are subject to permit review by the County and thus would comply with all applicable development standards in the County Zoning Code.

The project site is located within a larger County island[1] that is within the City of Santa Ana's Sphere of Influence (SOI). The available sewer service to the site, as well as the remainder of the County island, is provided by the City of Santa Ana. It is acknowledged that the City of Santa Ana has initiated a municipal reorganization that would result in the annexation all of the approximately 25-acre County island into the City. This reorganization (annexation) is being conducted by the City of Santa Ana as a separate project, subject to CEQA with the City of Santa Ana as the lead agency, and is not contemplated as an action under this project. The subject project would construct a new sewer line within Ponderosa Street and connecting into an existing main line located within 17th Street. The City may also, at some future date, extend this new sewer line to provide service to residential uses within other areas of the County island to be annexed. As part of the reorganization, the City of Santa Ana would zone the project site Community Commercial (C1) with a General Plan designation of General Commercial (GC), consistent with properties within the City of Santa Ana located north, west and south of the project site are zoned C1 and C2 and are primarily developed with commercial retail uses. As part of the reorganization, the County and the City would enter into a Cooperative Agreement that would, among other things, establish that the subject project would be approved and constructed under County review and inspection, and upon the issuance of final certificates of use and occupancy the City would then assume full land use authority.

According to the Santa Ana General Plan Land Use Element, the GC district applies to commercial corridors in Santa Ana including those located along 17th Street. The intensity standard applicable to this designation is a floor area ratio of 0.5-1.0. GC land uses provide important neighborhood facilities and services, including shopping, recreation, cultural and entertainment activities, employment, and education. The districts also provide support facilities and services for industrial areas including office and retail, restaurants and various other services. Thus, the project would be consistent with the land uses anticipated within the GC district.

Overall, the project would be consistent with the County's General Plan and zoning designations for the site and would be consistent with the City of Santa Ana's General Plan and zoning districts proposed as part of the reorganization, Cooperative Agreement and Water Agreement. The reorganization would also be consistent with the County's Sphere of Influence policies dealing with the ultimate disposition of County islands. Therefore, the project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to a general plan, specific plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. Impacts would be less than significant.

[1] Unincorporated islands are pockets of County territory that are surrounded or adjacent to cities.

REFERENCES

City of Santa Ana, *City of Santa Ana Code of Ordinances* (Santa Ana Municipal Code), codified through Ordinance No. 2944, adopted May 1, 2018.

City of Santa Ana, Santa Ana General Plan, Land Use Element, 1998.

County of Orange, *Codified Ordinances of the County of Orange,* codified through Ordinance No. 16-002, enacted March 15, 2016. (Supplement No. 130).

County of Orange, *County of Orange General Plan, Land Use Element,* October 2015.

County of Orange, Orange County LAFCO website, *Unincorporated Islands Map*, http://oclafco.org/wp-ontent/uploads/2019/02/Islands_Webpage_Master_Map_02_26_2019.pdf, accessed March 6, 2019.

4.12 MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				✓

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. Based on Figure VI-3, *Resources Element*, of the County General Plan, no mineral resources have been identified within the project site. Further, the site is designated as Suburban Residential (1B) and zoned Local Business (100-C1-10000(H)) with a Housing Opportunities Overlay. Although the project site is currently vacant, the land has been disturbed with previous commercial development and has not historically been associated with mineral resources. Therefore, project implementation would not result in the loss of availability of a known mineral resource that would be of value to the region and 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?

No Impact. Refer to Response 4.12(a). The project would not 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.

REFERENCES

County of Orange, *County of Orange General Plan*, July 2014.

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4.13 NOISE

Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 ground borne vibration or ground borne noise levels?			✓	
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such 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?				✓

The discussion below explains the general characteristics of noise and provides the noise standards for the County and the City of Santa Ana. The project is located entirely on land within the unincorporated Orange County and thus the County's noise standards apply to construction and operational activities on the site. There are residential and commercial uses located adjacent to the project, which are located within the City of Santa Ana and/or unincorporated Orange County. The noise standards of the City of Santa Ana are also assessed below to demonstrate that potential noise impacts from the project are less than significant under the relevant thresholds of all municipalities.

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air. Sound is characterized by both its amplitude and frequency (or pitch). The human ear does not hear all frequencies equally. In particular, the ear de-emphasizes low and very high frequencies. To better approximate the sensitivity of human hearing, the A-weighted decibel scale (dBA) has been developed. On this scale, the human range of hearing extends from approximately 3 dBA to around 140 dBA.

Noise is generally defined as unwanted or excessive sound, which can vary in intensity by over one million times within the range of human hearing; therefore, a logarithmic scale, known as the decibel scale (dB), is used to quantify sound intensity. Noise can be generated by a number of sources, including mobile sources such as automobiles, trucks, and airplanes, and stationary sources such as construction sites, machinery, and industrial operations. Noise generated by mobile sources typically attenuates (is reduced) at a rate between 3 dBA and 4.5 dBA per doubling of distance. The rate depends on the ground surface and the number or type of objects between the noise source and the receiver. Hard and flat surfaces, such as concrete or asphalt, have an attenuation rate of 3 dBA per doubling of distance. Soft surfaces, such as uneven or vegetated terrain, have an attenuation rate of about 4.5 dBA per doubling of distance. Noise generated by stationary sources typically attenuates at a rate between 6.0 dBA and about 7.5 dBA per doubling of distance.

There are a number of metrics used to characterize community noise exposure, which fluctuate constantly over time. One such metric, the equivalent sound level (L_{eq}), represents a constant

sound that, over the specified period, has the same sound energy as the time-varying sound. Noise exposure over a longer period of time is often evaluated based on the Day-Night Sound Level (L_{dn}). This is a measure of 24-hour noise levels that incorporates a 10-dBA penalty for sounds occurring between 10:00 p.m. and 7:00 a.m. The penalty is intended to reflect the increased human sensitivity to noises occurring during nighttime hours, particularly at times when people are sleeping and there are lower ambient noise conditions. Typical L_{dn} noise levels for light and medium density residential areas range from 55 dBA to 65 dBA.

Two of the primary factors that reduce levels of environmental sounds are increasing the distance between the sound source to the receiver and having intervening obstacles such as walls, buildings, or terrain features between the sound source and the receiver. Factors that act to increase the loudness of environmental sounds include moving the sound source closer to the receiver, sound enhancements caused by reflections, and focusing caused by various meteorological conditions.

U.S. ENVIRONMENTAL PROTECTION AGENCY

The U.S. Environmental Protection Agency (EPA) offers guidelines for community noise exposure in the publication *Noise Effects Handbook – A Desk Reference to Health and Welfare Effects of Noise*. The guidelines consider occupational noise exposure as well as noise exposure in homes. The EPA recognizes an exterior noise level of 55 decibels day-night level (dBA L_{dn}) as a general goal to protect the public from hearing loss, activity interference, sleep disturbance, and annoyance. The EPA and other Federal agencies have adopted suggested land use compatibility guidelines that indicate that residential noise exposures of 55 dBA L_{dn} to 65 dBA L_{dn} are acceptable. However, the EPA notes that these levels are not regulatory goals, but are levels defined by a negotiated scientific consensus, without concern for economic and technological feasibility or the needs and desires of any particular community.

STATE OF CALIFORNIA

The State Office of Planning and Research *General Plan Noise Element Guidelines* include recommended exterior and interior noise level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. The *General Plan Noise Element Guidelines* contain a land use compatibility table that describes the compatibility of various land uses with a range of environmental noise levels in terms of the Community Noise Equivalent Level (CNEL).

COUNTY OF ORANGE

County of Orange General Plan Noise Element

The noise standard for exterior and interior living areas require that existing or future noise levels not exceed an exterior CNEL of 65 dBA or an interior CNEL of 45 dBA. The Noise Element also includes the following policies pertaining to noise:

- *Noise Policy 4 (Noise Monitoring and Abatement): To monitor noise levels, and adopt and enforce noise abatement programs.*

- *Noise Policy 4.1: To enforce the County's Noise Ordinance to prohibit or mitigate harmful and unnecessary noise within the County.*

- *Noise Policy 4.3: To develop and enforce standards in addition to those presently included in the Noise Ordinance to regulate noise from construction and maintenance activities and commercial public and industrial land uses.*

- *Noise Policy 4.5: To require that noise from motors, appliances, air conditioners, and other consumer products does not disturb the occupants of surrounding properties.*

- *Noise Policy 5 (Noise/Land Use Planning): To fully integrate noise considerations in land use planning to prevent new noise/land use conflicts.*

- *Noise Policy 5.1: To utilize the criteria of acceptable noise levels for various types of land uses as depicted on Tables VIII-2 and VIII-3 (pages VIII-24 and VII-25 of the Noise Element) in the review of development proposals.*

- *Noise Policy 5.4: To stress the importance of building and design techniques in future site planning for noise reduction.*

- *Noise Policy 6.7: To apply noise standards as defined in the Noise Element for noise sensitive land uses.*

Codified Ordinances of the County of Orange Noise Control Ordinance. Division 6, *Noise Control*, of the County Municipal Code, contains all County noise standards and regulations. Section 4-6-7, *Special Provisions*, provides the following exemptions that are applicable to the project:

(e) Noise sources associated with construction, repair, remodeling, or grading of any real property, provided said activities do not take place between the hours of 8:00 p.m. and 7:00 a.m. on weekdays, including Saturday, or at any time on Sunday or a Federal holiday.

Therefore, noise associated with proposed construction activities would be exempt from the noise standards contained within Division 6, *Noise Control*, per Section 4-6-7(e) of the County Municipal Code.

Section 4-6-5(a) provides County exterior noise standards for residential property within a designated noise zone:

Table 4.13-1
Exterior Noise Standards

Noise Zone	Noise Level	Time Period
1	55 dBA	7:00 a.m. – 10:00 p.m.
	50 dBA	10:00 p.m. – 7:00 p.m.
Note: In the event the alleged offensive noise consists entirely of impact noise, simple tone noise, speech, music, or any combination thereof, each of the above noise levels shall be reduced by five (5) dB(A).		
Source: Division 6 (*Noise Control*), Article I (*General Provisions*) Section 4-6-5 of the Orange *County Code of Ordinance*, 2016.		

(b) It shall be unlawful for any person at any location within the unincorporated area of the County to create any noise, or to allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person, when the foregoing causes the

noise level, when measured on any other residential property, either incorporated or unincorporated, to exceed:

(1) The noise standard for a cumulative period of more than thirty (30) minutes in any hour; or

(2) The noise standard plus five (5) dB(A) for a cumulative period of more than fifteen (15) minutes in any hour; or

(3) The noise standard plus ten (10) dB(A) for a cumulative period of more than five (5) minutes in any hour; or

(4) The noise standard plus fifteen (15) dB(A) for a cumulative period of more than one (1) minute in any hour; or

(5) The noise standard plus twenty (20) dB(A) for any period of time.

(c) In the event the ambient noise level exceeds any of the first four (4) noise limit categories above, the cumulative period applicable to said category shall be increased to reflect said ambient noise level. In the event the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level.

Section 4-6-6(a) provides County interior noise standards for residential property within a designated noise zone:

Table 4.13-2
Interior Noise Standards

Noise Zone	Noise Level	Time Period
1	55 dBA	7:00 a.m. – 10:00 p.m.
	45 dBA	10:00 p.m. – 7:00 p.m.
Note: In the event the alleged offensive noise consists entirely of impact noise, simple tone noise, speech, music, or any combination thereof, each of the above noise levels shall be reduced by five (5) dB(A).		
Source: Division 6 (*Noise Control*), Article I (*General Provisions*) Section 4-6-6 of the Orange *County Code of Ordinance*, 2016.		

(b) It shall be unlawful for any person at any location within the unincorporated area of the County to create any noise, or to allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person, when the foregoing causes the noise level, when measured within any other dwelling unit on any residential property, either incorporated or unincorporated, to exceed:

(1) The interior noise standard for a cumulative period of more than five (5) minutes in any hour; or

(2) The interior noise standard plus five (5) db(A) for a cumulative period of more than one (1) minute in any hour; or

(3) The interior noise standard plus ten (10) db(A) for any period of time.

(c) In the event the ambient noise level exceeds either of the first two (2) noise limit categories above, the cumulative period applicable to said category shall be increased to reflect said

ambient noise level. In the event the ambient noise level exceeds the third noise limit category the maximum allowable noise level under said category shall be increased in reflect the maximum ambient noise level.

Section 18-315, *Schools, Hospitals, and Churches*; *Special Provisions*, prohibits any person to create any noise which causes the noise level at any school, hospital or church while the same is in use to exceed the noise limits as specified in Section 4-6-5, *Exterior Noise Standards*, prescribed for the assigned noise zone in which the school, hospital, or church is located, or which noise level unreasonably interferes with the use of such institutions or which unreasonably disturbs or annoys patients in the hospital, provided conspicuous signs are displayed in three (3) separate locations within one-tenth of a mile of the institution indicating the presence of a school, church, or hospital.

CITY OF SANTA ANA

City of Santa Ana General Plan Noise Element

The Noise Element of the *City of Santa Ana General Plan* (Santa Ana General Plan) contains information regarding noise sensitive land uses and noise sources, and defines areas of noise impact for the purpose of developing policies to ensure that Santa Ana residents are protected from excessive noise intrusion. The Santa Ana General Plan Noise Element also includes goals and policies identified below.

The Santa Ana General Plan Noise Element contains the following goal and policies related to noise and land use compatibility.

Goal 1: Prevent significant increases in noise levels in the community and minimize the adverse effects of currently-existing noise sources.

Policies:

- Require consideration of noise generation potential and susceptibility to noise impacts in the sitting, design, and construction of new developments.
- Require mitigating site and building design features, traffic circulation alternatives, insulation, and other noise prevention measures of those new developments which generate high noise levels.
- Sound insulate and/or buffer sensitive land uses such as housing from adverse noise impacts in noise-prone areas.
- Minimize noise generation in residential neighborhoods through control or elimination of truck traffic and through-traffic from these areas.

The City adopted the following standards and guidelines for noise levels for land uses:

Table 4.13-3
Interior and Exterior Noise Standards

Categories	Land Use Categories	Interior[1]	Exterior[2]
55	Single-family, duplex, multi-family	45[3]	65
60	Hospital, school classroom/playgrounds	45	65
65	Church, library	45	--
70	Parks	--	65

Notes:
1 Interior areas (to include but are not limited to: bedrooms, bathrooms, kitchens, living rooms, dining rooms, closets, corridors/hallways, private offices, and conference rooms).
2 Exterior areas shall mean: private yards of single family homes, park picnic areas, school playgrounds, common areas, private open space, such as atriums on balconies, shall be excluded from exterior areas provided sufficient common area is included within the project.
3 Interior noise level requirements contemplate a closed window condition. Mechanical ventilation system or other means of natural ventilation shall be provided per Chapter 12, Section 1305 of the Uniform Building Code.

Source: City of Santa Ana, City of Santa Ana General Plan Noise Element, 1982.

City of Santa Ana Code of Ordinance

Article VI, *Noise Control*, of the *City of Santa Ana Code of Ordinance* (Santa Ana Municipal Code) provides noise guidelines and standards. Santa Ana noise standards are presented in Table 4.13-4, *Exterior Noise Standards*.

Section 18-312, Exterior Noise Standards

(a) The following noise standards, unless otherwise specifically indicated, shall apply to all residential property within a designated noise zone:

Table 4.13-4
Exterior Noise Standards

Noise Zone	Noise Level	Time Period
1	55 dBA	7:00 a.m. – 10:00 p.m.
	50 dBA	10:00 p.m. – 7:00 p.m.

Note: In the event the alleged offensive noise consists entirely of impact noise, simple tone noise, speech, music, or any combination thereof, each of the above noise levels shall be reduced by five (5) dB(A).
Source: Article VI (*Noise Control*) Section 18-312 of the City of *Santa Ana Code of Ordinance*, 2016.

(b) It shall be unlawful for any person at any location within the City of Santa Ana to create any noise, or to allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person, when the foregoing causes the noise level, when measured on any other residential property, to exceed:

(1) The noise standard for a cumulative period of more than thirty (30) minutes in any hour; or

(2) The noise standard plus five (5) dB(A) for a cumulative period of more than fifteen (15) minutes in any hour; or

(3) The noise standard plus ten (10) dB(A) for a cumulative period of more than five (5) minutes in any hour; or

(4) The noise standard plus fifteen (15) dB(A) for a cumulative period of more than one minute in any hour; or

(5) The noise standard plus twenty (20) dB(A) for any period of time.

(c) In the event the ambient noise level exceeds any of the first four (4) noise limit categories above, the cumulative period applicable to said category shall be increased to reflect said ambient noise level. In the event the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level.

Section 18-313, Interior Noise Standards

(a) The following interior noise standards, unless otherwise specifically indicated, shall apply to all residential property within a designated noise zone:

Table 4.13-5
Interior Noise Standards

Noise Zone	Noise Level	Time Period
1	55 dBA	7:00 a.m. – 10:00 p.m.
	45 dBA	10:00 p.m. – 7:00 p.m.
Note: In the event the alleged offensive noise consists entirely of impact noise, simple tone noise, speech, music, or any combination thereof, each of the above noise levels shall be reduced by five (5) dB(A).		
Source: Article VI (*Noise Control*) Section 18-312 of the City of *Santa Ana Code of Ordinance*, 2016.		

(b) It shall be unlawful for any person at any location within the City of Santa Ana to create any noise, or to allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person, when the foregoing causes the noise level, when measured within any other dwelling unit on any residential property, to exceed:

(1) The interior noise standard for a cumulative period of more than five (5) minutes in any hour; or

(2) The interior noise standard plus five (5) db(A) for a cumulative period of more than one (1) minute in any hour; or

(3) The interior noise standard plus ten (10) db(A) for any period of time.

(c) In the event the ambient noise level exceeds either of the first two (2) noise limit categories above, the cumulative period applicable to said category shall be increased to reflect said ambient noise level. In the event the ambient noise level exceeds the third noise limit category, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level.

Construction activity noise is exempt as provided in Section 18-314(e), *Special Provisions*, of the Santa Ana Municipal Code, which states:

(e) Noise sources associated with construction, repair, remodeling, or grading of any real property, provided said activities do not take place between the hours of 8:00 p.m. and 7:00 a.m. on weekdays, including Saturday, or at any time on Sunday or a Federal holiday.

Section 18-315, *Schools, Hospitals, and Churches*; *Special Provisions*, prohibits any person to create any noise which causes the noise level at any school, hospital or church while the same is in use to exceed the noise limits as specified in Section 18-312, *Exterior Noise Standards*, prescribed for the assigned noise zone in which the school, hospital, or church is located, or which noise level unreasonably interferes with the use of such institutions or which unreasonably disturbs or annoys patients in the hospital, provided conspicuous signs are displayed in three (3) separate locations within one-tenth (1/10) of a mile of the institution indicating the presence of a school, church or hospital.

EXISTING STATIONARY SOURCES

Urban development surrounds the project site with the exception of a small (0.75 acre) area between the northerly site boundary and the Laguna Hills Nursery and Ponderosa Apartments. The primary sources of stationary noise in the project vicinity are urban-related activities (i.e., mechanical equipment, parking areas, and pedestrians). The noise associated with these sources may represent a single-event noise occurrence, short-term or long-term/continuous noise.

EXISTING MOBILE SOURCES

The majority of the existing noise in the project area is generated from vehicles traveling along 17th Street, Tustin Avenue, Ponderosa Street, and State Route 55 (SR-55). Overflight noise from nearby John Wayne Airport also contributes to the existing noise environment. As shown in Table 4.13-6, *Existing Traffic Noise Levels*, the highest mobile noise sources adjacent to the project site were modeled at 69.1 dBA along 17th Street between Tustin Avenue and Ponderosa Street and SR-55 and Carroll Street. Mobile source noise was modeled using the Federal Highway Administration's Highway Noise Prediction Model (FHWA RD-77-108), which incorporates several roadway and site parameters. The model does not account for ambient noise levels. Noise projections are based on modeled vehicular traffic as derived from the Traffic Impact Analysis; refer to Appendix G, *Traffic Impact Analysis*. A 40-mile per hour average vehicle speed along Tustin Avenue, 17th Street, Santa Clara Avenue, and Yorba Street, a 25-mile per hour average vehicle speed along Sherry Lane, Ponderosa Street, Deodar Street, and Carroll Way, and a 35-mile per hour average vehicle speed along Cabrillo Park Drive, Vanderberg Lane, and Enderle Center Drive were assumed for existing conditions based on empirical observations and posted maximum speeds. Average daily traffic estimates were obtained from the Traffic Impact Analysis.

Table 4.13-6
Existing Traffic Noise Levels

Roadway Segment	Existing Conditions				
	ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)		
			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour
Tustin Avenue					
North of Santa Clara Avenue	30,200	67.7	708	224	71
Santa Clara Avenue to North Driveway	29,900	67.9	700	221	70
North Driveway to South Driveway	28,600	67.5	670	212	67
South Driveway to Tustin Avenue	29,900	67.7	700	221	70
Tustin Avenue to Tustin Centre	28,700	67.4	673	213	67

Table 4.13-6, continued

Roadway Segment	Existing Conditions				
	ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)		
			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour
South of Tustin Centre	23,200	66.5	543	172	54
17th Street					
West of Cabrillo Park Drive	31,500	68.0	738	233	74
Cabrillo Park Drive to Tustin Avenue	33,900	68.4	795	251	79
Tustin Avenue to Ponderosa Street	42,200	69.1	989	313	99
Ponderosa Street to SR-55 Southbound Ramps	40,700	68.8	955	302	96
SR-55 Southbound Ramps to SR-55 Northbound Ramps	41,900	69.0	982	311	98
SR-55 Northbound Ramps to Carroll Way	42,500	69.1	996	315	100
Carroll Way to Enderle Center Drive	37,800	68.6	885	280	89
East of Enderle Center Drive	35,300	68.3	828	262	83
Santa Clara Avenue					
West of Tustin Avenue	11,400	63.8	267	84	27
East of Tustin Avenue	11,000	63.5	258	82	26
Sherry Lane					
North of 17th Street	5,600	56.5	48	15	5
Cabrillo Park Drive					
South of 17th Street	10,100	61.7	174	55	17
Ponderosa Street					
North of 17th Street	1,300	50.1	11	4	1
Deodar Street					
North of 17th Street	2,000	52.0	17	5	2
Carroll Way					
North of 17th Street	6,000	56.8	52	16	5
Yorba Street					
17th Street to Vanderberg Lane	9,000	62.7	211	67	21
South of Vanderberg Lane	8,200	62.2	192	61	19
Vanderberg Lane					
Yorba Street to Enderle Center Drive	3,900	57.8	67	21	7
Yorba Street					
North of 17th Street	10,200	63.3	239	76	24
Enderle Center Drive					
South of 17th Street	5,400	59.1	93	29	9

Notes: ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level.
Source: Based on traffic data within the Traffic Impact Analysis, prepared by Michael Baker International, Inc., December 19, 2017.

NOISE MEASUREMENTS

In order to quantify existing ambient noise levels in the project area, Michael Baker International (Michael Baker), conducted three short-term noise measurements on September 21, 2016[1]; refer to Table 4.13-7 *Noise Measurements*. The noise measurement sites were representative of typical existing noise exposure within and immediately adjacent to the project site. The ten-minute measurements were taken between 10:20 a.m. and 11:00 a.m. Short-term (L_{eq}) measurements

[1] It is acknowledged that the noise measurements were take on September 21, 2016. There have been no changes to the surrounding development or traffic patterns in the area since the noise measurements were taken. Thus, the existing noise environment has not changed, and therefore, these measurements adequately represent existing noise conditions in the project vicinity.

are considered representative of the noise levels throughout the day and relate closely with the noise standards for the project area. Exhibit 4.13-1, *Sensitive Receptors and Noise Measurement Locations*, depicts the location of the noise measurements as well as the surrounding sensitive receptors.

Table 4.13-7
Noise Measurements

Site No.	Location	L_{eq} (dBA)	L_{min} (dBA)	L_{max} (dBA)	Peak (dBA)	Time
1	On Ponderosa Street approximately 380 feet north of 17th Street.	58.8	48.0	88.5	90.7	10:20 a.m.
2	On Ponderosa Street approximately 580 feet north of 17th Street.	55.1	46.5	82.3	86.0	10:34 a.m.
3	On Ponderosa Street approximately 720 feet north of 17th Street.	61.8	45.6	83.7	97.4	10:48 a.m.

Source: Michael Baker International, September 21, 2016.

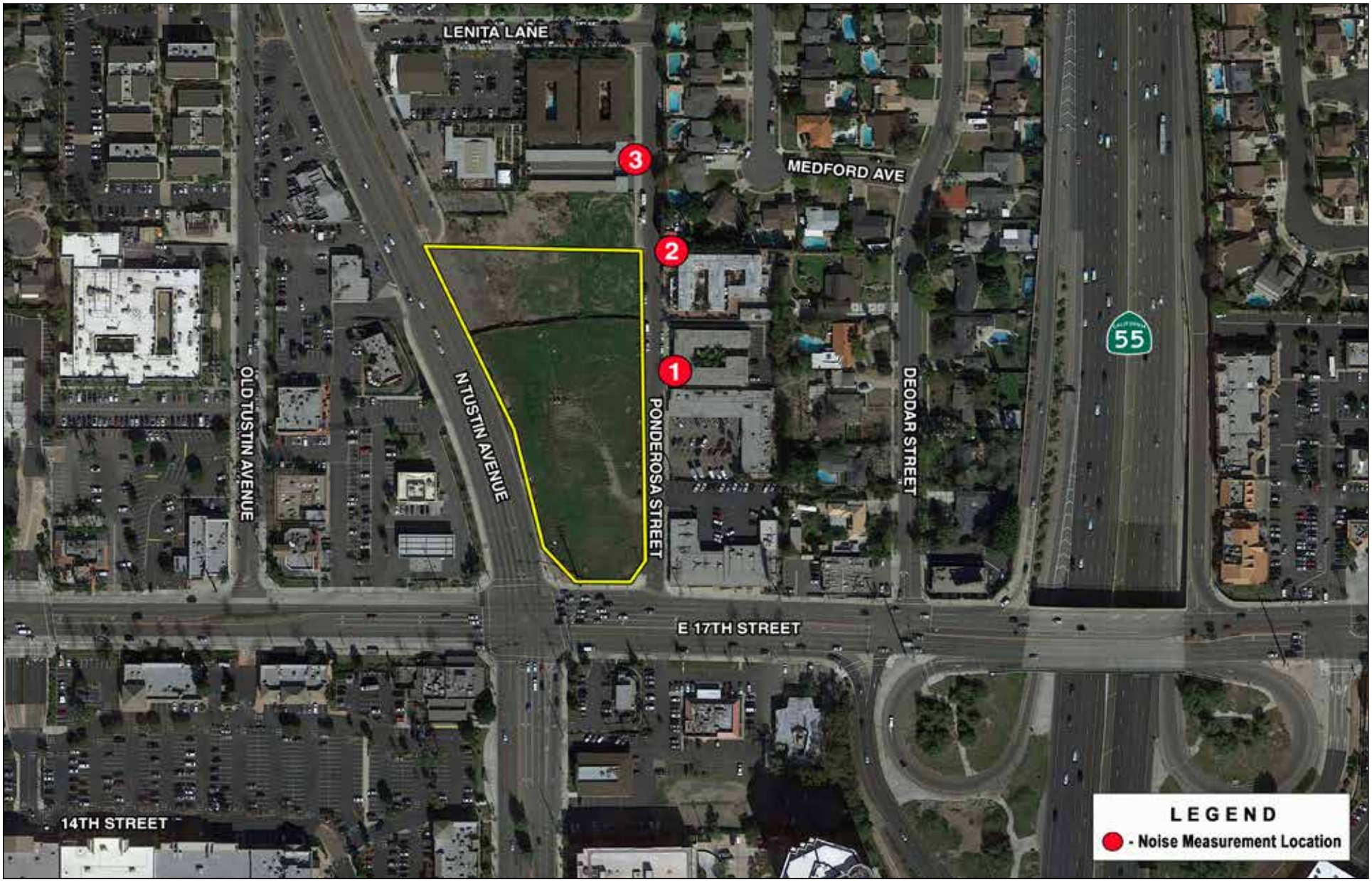
Meteorological conditions were clear skies, warm temperatures, with moderately light wind speeds (less than 5 miles per hour), and low humidity. Measured noise levels during the daytime measurements ranged from 55.1 to 61.8 dBA L_{eq}. Noise monitoring equipment used for the ambient noise survey consisted of a Brüel & Kjær Hand-held Analyzer Type 2250 equipped with a Type 4189 pre-polarized microphone. The monitoring equipment complies with applicable requirements of the American National Standards Institute (ANSI) for Type I (precision) sound level meters. The results of the field measurements are included in Appendix F, *Noise Data*.

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?

Less Than Significant Impact.

Short-Term Noise Impacts

Construction activities generally are temporary and have a short duration, resulting in periodic increases in the ambient noise environment. Construction of the proposed project would occur over approximately six months, and would include demolition, grading activities, and building construction. Ground-borne noise and other types of construction-related noise impacts typically occur during the demolition and grading construction phases. These phases of construction have the potential to create the highest levels of noise. Typical noise levels generated by construction equipment that could be used for the project are shown in Table 4.13-8, *Maximum Noise Levels Generated by Construction Equipment*. Operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be due to random incidents (lasting less than one minute) such as dropping large pieces of equipment or the hydraulic movement of machinery lifts.



Source: Google Earth, 2016.
- Project Area

NOT TO SCALE

Michael Baker INTERNATIONAL

03/19 I JN 151800

CHICK-FIL-A/IN-N-OUT 17TH AND TUSTIN
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Sensitive Receptors and Noise Measurement Locations

Exhibit 4.13-1

Table 4.13-8
Maximum Noise Levels Generated by Construction Equipment

Type of Equipment	Acoustical Use Factor[1]	L_{max} at 50 Feet (dBA)	L_{max} at 280 Feet (dBA)
Concrete Saw	20	90	75
Crane	16	81	66
Concrete Mixer Truck	40	79	64
Backhoe	40	78	63
Dozer	40	82	67
Excavator	40	81	66
Forklift	40	78	63
Paver	50	77	62
Roller	20	80	65
Tractor	40	84	69
Water Truck	40	80	65
Grader	40	85	70
General Industrial Equipment	50	85	70

Note:
Acoustical Use Factor (percent): Estimates the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation.

Source: Federal Highway Administration, *Roadway Construction Noise Model (FHWA-HEP-05-054),* January 2006.

Construction noise impacts generally happen when construction activities occur in areas immediately adjoining noise sensitive land uses, during noise sensitive times of the day, or when construction activity occurs at the same precise location over an extended period of time (e.g., pile driving in one location for 8-10 hours in a day, or over a duration of several successive days). The closest sensitive receptors are residential uses to the north and east of the project site. Graders represent the loudest piece of construction equipment and would be used during the grading phase. Grading activities would occur at a minimum distance of 50 feet from the closest sensitive receptors (i.e. residential uses to the east). At this distance, graders would generate a maximum noise level of 85 dBA L_{max}; refer to Table 4.13-8. During grading, the equipment travels around the graded area to move earth. From the perspective of a sensitive receptor, the equipment approaches, passes by, and then recedes into the distance. Peak noise levels would thus be periodic, intermittent, and temporary during brief pass-by periods when construction equipment operates at the far extent of the grading limits. Additionally, concrete saws would be used during site demolition to cut existing sidewalks within public right-of-way. Existing sidewalks within public right-of-way are located approximately 280 feet from the nearest sensitive receptors (i.e. residential uses to the east). As depicted in Table 4.13-8, concrete saws would generate a maximum noise level of 75 dBA L_{max} at 280 feet.

Construction would occur throughout the project site and would not be concentrated in or confined to one specific area of the project site. Therefore, construction noise would be acoustically dispersed throughout the project site and not concentrated in one area near adjacent sensitive uses (i.e., residential uses to the north and east of the project site). Construction activities in any one area would be temporary and intermittent, and therefore not occur in any one particular area on the site for the entire construction duration. Additionally, construction noise would be partially masked to the residential uses to the north and east by ambient traffic noise levels along 17th Street, Tustin Avenue, and Ponderosa Street.

The noise ordinances for each applicable jurisdiction (i.e., County of Orange and City of Santa Ana) exempt construction activity noise provided that construction occurs between the hours of 7:00 a.m. and 8:00 p.m. on weekdays and Saturdays. Both the County Municipal Code

and Santa Ana Municipal Code prohibit construction noise on Sundays and Federal holidays. Neither jurisdiction has established noise level standards for construction activities. As the project would comply with the permitted hours of construction, as required by both the County and Santa Ana Municipal Codes, the proposed construction noise is allowed by the County Noise Ordinance. Standard Condition N10 mandates that the project adhere to the construction hour limitations set forth in the County Municipal Code and implements a variety of noise-attenuating measures to ensure construction noise does not significantly impact sensitive receptors in the project area. Therefore, construction noise impacts would be less than significant.

Long-Term Operational Impacts

Off-Site Mobile Noise

Future development generated by the proposed project would result in additional traffic on adjacent roadways, thereby increasing vehicular noise in the vicinity of existing and proposed land uses. Based on the Traffic Impact Analysis, the proposed project is projected to generate a total of approximately 3,419 trips per day, which includes approximately 177 a.m. peak hour trips, approximately 225 p.m. peak hour trips, and approximately 406 Saturday mid-day trips. The "Future Without Project" and "Future With Project" scenarios are compared in Table 4.13-9, *Future Traffic Noise Levels*. As depicted in Table 4.13-9, under the "Future Without Project" scenario, noise levels would range from approximately 50.5 dBA to 69.6 dBA, with the highest noise levels occurring along 17th Street between Tustin Avenue and Ponderosa Street and between SR-55 Northbound Ramps and Carroll Way. The "Future With Project" scenario noise levels would range from approximately 52.2 dBA to 69.7 dBA, with the highest noise levels also occurring along 17th Street between Tustin Avenue and Ponderosa Street.

Table 4.13-9
Future Traffic Noise Levels

Roadway Segment	Future Without Project					Future With Project					Difference in dBA @ 100 feet from Roadway
	ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet) 60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour	ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet) 60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour	
Tustin Avenue											
North of Santa Clara Avenue	33,300	68.1	780	247	78	33,600	68.1	787	249	79	0.0
Santa Clara Avenue to North Driveway	32,900	68.3	771	244	77	35,100	68.6	823	260	82	0.3
North Driveway to South Driveway	31,600	68.0	740	234	74	33,500	68.2	785	248	79	0.2
South Driveway to Tustin Avenue	33,000	68.2	773	244	77	34,700	68.4	813	257	81	0.2
Tustin Avenue to Tustin Centre	32,700	68.0	766	242	77	33,000	68.0	773	244	77	0.0
South of Tustin Centre	27,200	67.2	637	201	64	27,500	67.2	644	204	64	0.0
17th Street											
West of Cabrillo Park Drive	35,800	68.6	840	266	84	36,100	68.6	846	267	85	0.0
Cabrillo Park Drive to Tustin Avenue	38,400	68.9	900	285	90	38,900	69.0	912	289	91	0.1
Tustin Avenue to Ponderosa Street	47,800	69.6	1120	354	112	49,200	69.7	1154	365	115	0.1
Ponderosa Street to SR-55 South-bound Ramps	46,100	69.4	1081	342	108	47,600	69.5	1117	353	112	0.1
SR-55 Southbound Ramps to SR-55 Northbound Ramps	46,100	69.5	1082	342	108	47,100	69.6	1104	349	110	0.1
SR-55 Northbound Ramps to Carroll Way	46,900	69.6	1099	348	110	47,400	69.6	1112	352	111	0.0
Carroll Way to Enderle Center Drive	41,500	69.0	973	308	97	41,800	69.0	980	310	98	0.0
East of Enderle Center Drive	38,900	68.7	912	288	91	39,200	68.8	918	290	92	0.1
Santa Clara Avenue											
West of Tustin Avenue	12,700	64.3	298	94	30	13,000	64.4	305	96	30	0.1
East of Tustin Avenue	12,200	64.0	286	90	29	12,500	64.1	293	93	29	0.1
Sherry Lane											
North of 17th Street	6,200	56.9	53	17	5	6,200	56.9	53	17	5	0.0

Table 4.13-9, continued

Roadway Segment	Future Without Project					Future With Project					Difference in dBA @ 100 feet from Roadway
	ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet) 60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour	ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet) 60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour	
Cabrillo Park Drive											
South of 17th Street	11,300	62.2	195	62	19	11,500	62.3	198	63	20	0.1
Ponderosa Street											
North of 17th Street	1,400	50.5	12	4	1	2,100	52.2	18	6	2	1.7
Deodar Street											
North of 17th Street	2,300	52.6	20	6	2	2,300	52.6	20	6	2	0.0
Carroll Way											
North of 17th Street	6,700	57.3	58	18	6	6,700	57.3	58	18	6	0.0
Yorba Street											
17th Street to Vanderberg Lane	10,100	63.2	237	75	24	10,300	63.3	242	76	24	0.1
South of Vanderberg Lane	9,200	62.7	215	68	22	9,400	62.7	215	68	22	0.0
Vanderberg Lane											
Yorba Street to Enderle Center Drive	4,400	58.3	76	24	8	4,400	58.3	76	24	8	0.0
Yorba Street											
North of 17th Street	12,700	64.3	298	94	30	12,700	64.3	298	94	30	0.0
Enderle Center Drive											
South of 17th Street	6,100	59.6	105	33	11	6,100	59.6	105	33	11	0.0

Notes: ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level

Source: Based on traffic data within the Traffic Impact Analysis, prepared by Michael Baker International, Inc., December 19, 2017.

Table 4.13-9 also shows the difference between the "Future Without Project" scenario and the "Future With Project" scenario. The noise levels would result in a maximum increase of 1.7 dBA as a result of the proposed project. This increase in noise would occur along Ponderosa Street (north of 17th Street)[2]. Since the proposed project would not significantly increase noise levels along the roadway segments analyzed (i.e., noise increase would be less than 3.0 dBA),[3] a less than significant impact would occur.

Cumulative Mobile Source Impacts

A project's contribution to a cumulative traffic noise increase would be considered significant when the combined effect exceeds perception level (i.e., auditory level increase) threshold. The combined effect compares the "cumulative with project" condition to "existing" conditions. This comparison accounts for the traffic noise increase generated by a project combined with the traffic noise increase generated by projects in the cumulative project list. The following criteria have been utilized to evaluate the combined effect of the cumulative noise increase.

Combined Effect

The cumulative with project noise level ("Future With Project") would cause a significant cumulative impact if a 3.0 dB increase over existing conditions occurs and the resulting noise level exceeds the applicable exterior standard at a sensitive use.

Although there may be a significant noise increase due to the proposed project in combination with other related projects (combined effects), it must also be demonstrated that the project has an incremental effect. In other words, a significant portion of the noise increase must be due to the proposed project. The following criteria have been utilized to evaluate the incremental effect of the cumulative noise increase.

Incremental Effects

The "Future With Project" causes a 1.0 dBA increase in noise over the "Future Without Project" noise level.

A significant impact would result only if both the combined and incremental effects criteria have been exceeded. Noise by definition is a localized phenomenon, and reduces as distance from the source increases. Consequently, only the proposed project and growth due to occur in the project site's general vicinity would contribute to cumulative noise impacts. Table 4.13-10, *Cumulative Noise Scenario*, lists the traffic noise effects along roadway segments in the project vicinity for "Existing," "Future Without Project," and "Future With Project," conditions, including incremental and net cumulative impacts.[4]

[2] This segment includes 17th Street to the proposed project driveway along Ponderosa Street.

[3] According to the California Department of Transportation's *Traffic Noise Analysis Protocol*, dated May 2011, a 3.0 dBA difference in noise level is generally the point at which the human ear will perceive a difference in noise level.

[4] The traffic noise levels shown in Table 4.13-10 do not include background ambient noise or stationary noise sources.

As indicated in Table 4.13-10, the Incremental Effects criterion of 1.0 dBA[5] over the "Future Without Project" is exceeded along Ponderosa Street (north of 17th Street) at 1.7 dBA, however, the Combined Effects criterion of 3.0 dBA over the existing condition are not exceeded along any of the segments. Thus, none of the roadway segments would have a significant cumulative noise increase. Therefore, the proposed project, in combination with cumulative background traffic noise levels, would result in less than significant impacts.

Table 4.13-10
Cumulative Noise Scenario

Roadway Segment	Existing	Future Without Project	Future With Project	Combined Effects	Incremental Effects	Cumulatively Significant Impact?
	dBA @ 100 Feet from Roadway Centerline	dBA @ 100 Feet from Roadway Centerline	dBA @ 100 Feet from Roadway Centerline	Difference In dBA Between Existing and Future With Project	Difference In dBA Between Future Without Project and Future With Project	
Tustin Avenue						
North of Santa Clara Avenue	67.7	68.1	68.1	0.4	0.0	**No**
Santa Clara Avenue to North Driveway	67.9	68.3	68.6	0.7	0.3	**No**
North Driveway to South Driveway	67.5	68.0	68.2	0.7	0.2	**No**
South Driveway to Tustin Avenue	67.7	68.2	68.4	0.7	0.2	**No**
Tustin Avenue to Tustin Centre	67.4	68.0	68.0	0.6	0.0	**No**
South of Tustin Centre	66.5	67.2	67.2	0.7	0.0	**No**
17th Street						
West of Cabrillo Park Drive	68.0	68.6	68.6	0.6	0.0	**No**
Cabrillo Park Drive to Tustin Avenue	68.4	68.9	69.0	0.6	0.1	**No**
Tustin Avenue to Ponderosa Street	69.1	69.6	69.7	0.6	0.1	**No**
Ponderosa Street to SR-55 Southbound Ramps	68.8	69.4	69.5	0.7	0.1	**No**
SR-55 Southbound Ramps to SR-55 Northbound Ramps	69.0	69.5	69.6	0.6	0.1	**No**
SR-55 Northbound Ramps to Carroll Way	69.1	69.6	69.6	0.5	0.0	**No**
Carroll Way to Enderle Center Drive	68.6	69.0	69.0	0.4	0.0	**No**
East of Enderle Center Drive	68.3	68.7	68.8	0.5	0.1	**No**
Santa Clara Avenue						
West of Tustin Avenue	63.8	64.3	64.4	0.6	0.1	**No**
East of Tustin Avenue	63.5	64.0	64.1	0.6	0.1	**No**
Sherry Lane						
North of 17th Street	56.5	56.9	56.9	0.4	0.0	**No**
Cabrillo Park Drive						
South of 17th Street	61.7	62.2	62.3	0.6	0.1	**No**
Ponderosa Street						

[5] Derived from the Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, May 2006.

Table 4.13-10, continued

Roadway Segment	Existing	Future Without Project	Future With Project	Combined Effects	Incremental Effects	Cumulatively Significant Impact?
	dBA @ 100 Feet from Roadway Centerline	dBA @ 100 Feet from Roadway Centerline	dBA @ 100 Feet from Roadway Centerline	Difference In dBA Between Existing and Future With Project	Difference In dBA Between Future Without Project and Future With Project	
North of 17th Street	50.1	50.5	52.2	2.1	1.7	**No**
Deodar Street						
North of 17th Street	52.0	52.6	52.6	0.6	0.0	**No**
Carroll Way						
North of 17th Street	56.8	57.3	57.3	0.5	0.0	**No**
Yorba Street						
17th Street to Vanderberg Lane	62.7	63.2	63.3	0.6	0.1	**No**
South of Vanderberg Lane	62.2	62.7	62.7	0.5	0.0	**No**
Vanderberg Lane						
Yorba Street to Enderle Center Drive	57.8	58.3	58.3	0.5	0.0	**No**
Yorba Street						
North of 17th Street	63.3	64.3	64.3	1.0	0.0	**No**
Enderle Center Drive						
South of 17th Street	59.1	59.6	59.6	0.5	0.0	**No**

Notes: ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level

Source: Based on traffic data within the Traffic Impact Analysis, prepared by Michael Baker International, Inc., December 19, 2017.

Stationary Noise Impacts

As stated above, the project proposes two commercial fast food restaurant facilities. Noise that is typical of commercial areas includes mechanical equipment, slow moving trucks, parking activities, outdoor patio areas, and pedestrian activity; typical of the surrounding commercial and residential area. Standard Condition N02 would ensure that the overall noise environment and acoustical design features meet County and City of Santa Ana regulations and Standard Condition N08 would ensure that operational noise meet the requirements set forth in the County's Municipal Code. Therefore, Noise impacts to surrounding uses associated with implementation of the proposed project are anticipated to be less than significant.

- *Mechanical Equipment*. The proposed project would require the use of commercial heating, ventilation, and air conditioning units (HVAC). Noise levels for commercial-scale HVAC equipment can reach 100 dBA at a distance of three feet.[6] These units are generally equipped with noise shielding cabinets, placed on the roof, and are not usually significant sources of noise impacts. Typically, the shielding and location of HVAC units reduces noise levels to no greater than 55 dBA at 50 feet from the source. Based on the proposed site plan, HVAC equipment placed on the In-N-Out structure roof would be located closest to sensitive receptors (approximately 153 feet), as HVAC equipment located on the roof of the Chick-fil-A structure would be approximately 190

[6] U.S. Environmental Protection Agency, *Community Noise*, 1971.

feet from the nearest sensitive receptor. At a distance of approximately 153 feet, the maximum noise exposure at the nearest sensitive receptor would be approximately 45.3 dBA. Therefore, potential noise levels would be below both County and City of Santa Ana standards, as well as ambient noise levels. Thus, impacts resulting from mechanical equipment would be less than significant.

- *Slow-Moving Trucks (Deliveries)*. The proposed project includes a commercial restaurant development that would necessitate occasional small truck delivery and waste hauling operations. The California Motor Vehicle Code establishes maximum sound levels for trucks operating at speeds less than 35 miles per hour (Section 23130). The maximum sound level established by the code is 86 dBA at 50 feet. However, average noise levels for single idling trucks generally range from 60 to 65 dB at a distance of 100 feet, and maximum noise levels associated with medium delivery trucks generally range from 55 to 60 dB at a distance of 100 feet, depending on whether or not the driver is accelerating.

  Based on the proposed site plan, delivery and waste hauling truck operations would occur at a minimum of 135 feet (In-N-Out) and 181 feet (Chick-fil-A) from the nearest sensitive receptors. Based on an attenuation rate of six dB per doubling of distance, the maximum sound level at the nearest sensitive receptor from delivery trucks would be approximately 62 dBA. However, as discussed in Section 3.0, truck deliveries to the project site would generally occur outside of normal business hours and would consist of small trucks or vans and would not generate excessive noise levels over an extended period of time. Therefore, operational noise impacts resulting from delivery and waste hauling vehicles would be less than significant.

- *Parking Lot Activities*. Traffic associated with parking lots is typically not of sufficient volume to exceed community noise standards, which are based on a time-averaged scale such as the CNEL scale. However, the instantaneous maximum sound levels generated by a car door slamming, car horns, engine starting up, car idling, and car pass-bys may be an annoyance to adjacent noise-sensitive receptors. Estimates of the maximum noise levels associated with some parking lot activities are presented in Table 4.13-11, *Typical Noise Levels Generated by Parking Lots*. Conversations in parking areas may also be an annoyance to adjacent sensitive receptors. Sound levels of speech typically range from 33 dBA at 48 feet for normal speech to 50 dBA at 50 feet for very loud speech.

Table 4.13-11
Maximum Noise Levels Generated by Parking Lots

Noise Source	Maximum Noise Levels at 50 Feet from Source	Maximum Noise Levels at 113 Feet from Source
Car horn	86 dBA	79 dBA
Car door slamming	63 dBA L_{eq}	56 dBA L_{eq}
Car starting	60 dBA L_{eq}	53 dBA L_{eq}
Car idling	61 dBA L_{eq}	54 dBA L_{eq}

Source: Kariel, H. G., *Noise in Rural Recreational Environments*, Canadian Acoustics 19(5), 3-10, 1991 and Cowan, James P., *Handbook of Environmental Acoustics*, 1994.

Parking lot noise are instantaneous noise levels compared to noise standards in the CNEL scale, which are averaged over time. As a result, actual noise levels over time

resulting from parking lot activities would be far lower than what is identified in Table 4.13-11. Parking lot noise would occur within the surface parking lot on-site. The closest sensitive receptors are located approximately 113 feet east of an on-site parking lot. As shown in Table 4.13-11, noise associated with parking lot activities would not exceed both County and City of Santa Ana Noise Standards during operation, with the exception of car horn noise levels. However, it is anticipated that car horn noise would be infrequent and short in duration and would be partially masked by background noise from traffic along Ponderosa Street, Tustin Avenue, and 17th Street. It should be noted that future customers may also park along Ponderosa Street. However, cars currently park along Ponderosa Street under existing conditions; thus, the project would not result in increased noise levels over existing conditions in this regard. Therefore, noise impacts from parking lots would be less than significant.

- *Drive-Thru Operations.* The project proposes two restaurants, Chick-fil-A and In-N-Out. Chick-fil-A proposes a two-lane drive-thru and In-N-Out proposes a single lane drive-thru. Noise levels from drive-thru operations would be primarily from the drive-thru speakerphone, located on the northeastern portion of the In-N-Out building oriented towards Ponderosa Street, and the southern portion of the Chick-fil-A building, oriented toward 17th Street. According to the *Drive-Thru Sound Levels* white paper prepared by HM Electronics (May 24, 2010), the typical noise level associated with active drive-thru operations is 54 dBA L_{eq} at a distance of 32 feet.[7] As previously noted, the closest sensitive receptors to the project site are multi-family residents located approximately 50 feet east of the project site (at a distance of 50 feet, 54 dBA L_{eq} would be reduced to 50.1 dBA L_{eq}). The noise would be masked by traffic noise levels that currently exist along Ponderosa Street; refer to Table 4.13-7. As indicated in Table 4.13-7, the existing noise level along Ponderosa Street, near the proposed menu/order board is 61.8 dBA L_{eq}, which is greater than the drive-thru reference noise level of 50.1 dBA L_{eq} at a distance of 50 feet. Additionally, when the In-N-Out drive-thru queue is lined back to the menu/order board (located at the eighth car back from the pay window) an associate is sent out to take orders over a tablet and the speaker system is not used. Further, at night, the In-N-Out menu/order board system automatically reduces outbound volume to adjust for the decrease in ambient noise. For example, the In-N-Out menu/order board system would reduce the noise level of 50.1 dBA L_{eq} at a distance of 50 feet to 26.1 dBA with an ambient noise level of 45 dBA. Thus, noise levels associated with drive-thru operations would not exceed the County and City of Santa Ana nighttime noise standard of 50 dBA and impacts would be less than significant in this regard.

  According to the site plan, the Chick-fil-A menu/order board would be facing 17th Street. Therefore, noise from the Chick-fil-A operations would be consistent with the surrounding commercial uses and traffic noise along 17th Street, Tustin Avenue, and Ponderosa Street. Impacts would be less than significant in this regard.

- *Outdoor Patio Areas*. The project proposes 800 square feet of outdoor patio space for Chick-fil-A and 400 square feet of outdoor patio space for In-N-Out. The proposed outdoor patio areas have the potential to be accessed by groups of people

[7] HM Electronics, Inc., Memo, Re: Drive-Thru Sound Pressure Levels From the Menu Board or Speaker Post, May 24, 2010.

intermittently. Noise generated by groups of people (i.e., crowds) is dependent on several factors including vocal effort, impulsiveness, and the random orientation of the crowd members. Crowd noise is estimated at 60 dBA at one meter (3.28 feet) away for raised normal speaking.[8] This noise level would have a +5 dBA adjustment for the impulsiveness of the noise source, and a -3 dBA adjustment for the random orientation of the crowd members.[9] Therefore, crowd noise would be approximately 62 dBA at one meter (3.28 feet) from the source. Noise has a decay rate due to distance attenuation, which is calculated based on the Inverse Square Law. Based upon the Inverse Square Law, sound levels decrease by 6 dBA for each doubling of distance from the source.[10] As the nearest sensitive receptor is approximately 100 feet from the In-N-Out outdoor patio area, crowd noise would be approximately 32 dBA, which would not exceed the range of existing ambient noise levels in the area immediately surrounding the project site of 55.1 to 61.8 dBA (along Ponderosa Street); refer to Table 4.13-7. As such, impacts would be less than significant in this regard.

b. Generation of excessive ground borne vibration or ground borne noise levels?

Less Than Significant Impact. Project construction can generate varying degrees of ground-borne vibration, depending on the construction procedure and the equipment used. Operation of equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Ground-borne vibrations from construction activities rarely reach levels that damage structures.

The Federal Transit Administration (FTA) has published standard vibration velocities for construction equipment operations. In general, the FTA architectural damage criterion for continuous vibrations (i.e., 0.20 inch/second) appears to be conservative.

The types of construction vibration impact include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Ordinary buildings that are not particularly fragile would not experience any cosmetic damage (e.g., plaster cracks) at distances beyond 30 feet. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. In addition, not all buildings respond similarly to vibration generated by construction equipment. Typical vibration produced by construction equipment is illustrated in Table 4.13-12, *Typical Vibration Levels for Construction Equipment*.

8 M.J. Hayne, et al, Prediction of Crowd Noise*, Acoustics*, November 2006.
9 Ibid.
10 Cyril M. Harris, Noise Control in Buildings, 1994.

Table 4.13-12
Typical Vibration Levels for Construction Equipment

Equipment	Approximate peak particle velocity at 25 feet (inches/second)	Approximate peak particle velocity at 50 feet (inches/second)[1]
Loaded trucks	0.076	0.031
Small bulldozer	0.003	0.027
Large bulldozer, Auger/drill rigs	0.089	0.001
Jackhammer	0.035	0.012

Notes:
1. Calculated using the following formula:
$PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$
where: PPV (equip) = the peak particle velocity in in/sec of the equipment adjusted for the distance
PPV (ref) = the reference vibration level in in/sec from Table 12-2 of the FTA *Transit Noise and Vibration Impact Assessment Guidelines*
D = the distance from the equipment to the receiver

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment , May 2006.

Ground-borne vibration decreases rapidly with distance. As indicated in Table 4.13-12, based on the FTA data, vibration velocities from typical heavy construction equipment operations typically used during construction range from 0.003 to 0.089 inch-per-second peak particle velocity (PPV) at 25 feet from the source of activity. The closest sensitive receptors to the proposed construction activities on the project site would be adjacent residences located approximately 50 feet from the project site. At 50 feet, these pieces of construction equipment would result in 0.001 to 0.031 inch-per-second PPV and would be below the 0.20 inch-per-second PPV significance threshold. Therefore, as vibration is anticipated to be below the 0.20 inch-per-second PPV significance threshold, vibration impacts associated with construction activities would be less than significant. Operation of the proposed restaurants would not include activities that produce vibration. The post-project condition would be similar to existing conditions. Therefore, the project would not expose persons to or generation of excessive ground borne vibration or ground borne noise levels.

c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such 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 nearest airport to the project site is the John Wayne Airport located approximately 5.5 miles to the southwest. Overflight noise from this airport contributes to the existing noise environment. The proposed project is not located within an airport land use plan. Further, no private airstrips or related facilities are located in Orange County. Therefore, project implementation would not expose people residing or working in the project area to excessive noise levels associated with aircraft. No impacts would occur in this regard.

Standard Conditions of Approval:

Standard Condition N02: Except when the interior noise level exceeds the exterior noise level, the Applicant shall sound attenuate all nonresidential structures against the combined impact of all present and projected noise from exterior noise sources to meet the interior noise criteria as specified in the Noise Element and Land Use/Noise Compatibility Manual. Prior to the issuance of any Building Permits, the Applicant shall submit to the Manager, OC Development Services, an acoustical analysis report prepared under the supervision of a County-certified acoustical consultant which describes in detail the exterior noise environment and the acoustical design

features required to achieve the interior noise standard and which indicates that the sound attenuation measures specified have been incorporated into the design of the project.

Standard Condition N08: Prior to the issuance of any Building or Grading Permits, the Applicant shall obtain the approval of the Manager, OC Development Services of an acoustical analysis report and appropriate plans which demonstrate that the noise levels generated by this project during its operation shall be controlled in compliance with Orange County Codified Ordinance, Division 6 (Noise Control). The report shall be prepared under the supervision of a County-certified Acoustical Consultant and shall describe the noise generation potential of the project during its operation and the noise mitigation measures, if needed, which shall be included in the plans and specifications of the project to assure compliance with Orange County Codified Ordinance, Division 6 (Noise Control).

Standard Condition N10:

A. Prior to the issuance of any Grading Permits, the project proponent shall produce evidence acceptable to the Manager, OC Development Services, that:

    a. All construction vehicles or equipment, fixed or mobile, operated within 1,000' of a dwelling shall be equipped with properly operating and maintained mufflers.

    b. All operations shall comply with Orange County Codified Ordinance Division 6 (Noise Control).

    c. Stockpiling and/or vehicle staging areas shall be located as far as practicable from dwellings.

B. Notations in the above format, appropriately numbered and included with other notations on the front sheet of the project's permitted grading plans, will be considered as adequate evidence of compliance with this condition.

REFERENCES

California Department of Transportation, *Traffic Noise Analysis Protocol*, May 2011.

City of Santa Ana, *City of Santa Ana Code of Ordinances*, codified through Ordinance No. 2898, enacted May 17, 2016. (Supplement No. 16).

City of Santa Ana, *City of Santa Ana General Plan*, adopted January 2010.

County of Orange, *Codified Ordinances of the County of Orange,* codified through Ordinance No. 16-002, enacted March 15, 2016. (Supplement No. 130).

County of Orange, *County of Orange General Plan,* July 2014.

County of Orange, *Standard Conditions of Approval Manual*, April 2001.

Cowan, James P., *Handbook of Environmental Acoustics*, 1994.

Cyril M. Harris, *Noise Control in Buildings*, 1994.

Federal Highway Administration, *Roadway Construction Noise Model (FHWA-HEP-05-054),* January 2006.

Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, May 2006.

Google Earth Maps, http://maps.google.com, accessed January 2017.

HM Electronics, Inc., Memo, Re: Drive-Thru Sound Pressure Levels From the Menu Board or Speaker Post, May 24, 2010.

Kariel, H. G., *Noise in Rural Recreational Environments*, Canadian Acoustics 19(5), 3-10, 1991.

M.J. Hayne, et al, *Prediction of Crowd Noise, Acoustics*, November 2006.

Michael Baker International, *Chick-fil-A and In-N-Out at 17th Street and Tustin Avenue in County of Orange Traffic Impact Analysis*, dated December 19, 2017.

U.S. Environmental Protection Agency, *Community Noise*, 1971.

U.S. Environmental Protection Agency, *Noise Effects Handbook – A Desk Reference to Health and Welfare Effects of Noise*, October 1979, revised July 1981, http://www.nonoise.org/library/handbook/handbook.htm.

4.14 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?				✓

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)?

Less Than Significant Impact. A project could induce population growth in an area either directly, through the development of new residences or businesses, or indirectly, through the extension of roads or other infrastructure. As described in Section 2.0, *Project Description*, the project involves the construction of two new drive-thru restaurants on vacant land. Therefore, implementation of the proposed project is not anticipated to result in a substantial increase in population (indirectly as a result of employees generated) compared to existing conditions.

Although an uncertainty exists regarding the number of new employees, who may choose to relocate to the project area, a conservative analysis of impacts associated with indirect population growth can be provided. Upon buildout of the project, the In-N-Out restaurant would employ approximately 30 full-time employees and 20 part-time employees and the Chick-fil-A restaurant would employ approximately 50 to 70 full- and/or part-time employees with anywhere from 10 to 20 employees on shift at any one time. For analysis purposes, it is assumed that 100 percent of the project's new full-time employees would relocate to the project area (i.e., Unincorporated Orange County, Santa Ana, or Tustin). Based on 100 new employees[1] relocating to Unincorporated Orange County and an average household size of 3.19[2], project implementation would result in a potential population increase of approximately 319 persons in Unincorporated Orange County. This potential population growth generated by the project would increase the Unincorporated Orange County 2018 population of 129,278[3] persons to 129,597 persons, constituting an increase of 0.25 percent.

Should the project's 100 new employees choose to relocate to the City of Santa Ana, project implementation would result in a potential population increase of 448 persons (based on the City's average household size of 4.48).[4] This potential population growth would increase the

1 Total assumes 30 In-N-Out employees plus 70 Chick-Fil-A employees.
2 State of California, Department of Finance, *E-5 Population and Housing Estimates for Cities, Counties, and the State, January 1, 2011-2018, with 2010 Benchmark,* http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/, accessed February 6, 2019.
3 Ibid.
4 Ibid.

City of Santa Ana's 2018 population of 338,247 persons to 338,695 persons, constituting an increase of 0.13 percent.

Should the project's 100 new employees choose to relocate to the City of Tustin, project implementation would result in a potential population increase of 305 persons (based on the City's average household size of 3.05).[5] This potential population growth would increase the City of Tustin's 2018 population of 82,344 to 82,649 persons, representing an increase of 0.37 percent.

Therefore, implementation of the proposed project would not induce substantial population growth within the Unincorporated Orange County, Santa Ana, or Tustin either directly or indirectly, resulting in less than significant impacts.

b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The project site currently consists of vacant land. No housing exists on-site. Therefore, project implementation would not displace any existing housing or people. No impact would result in this regard.

REFERENCES

State of California, Department of Finance, *E-5 Population and Housing Estimates for Cities, Counties, and the State, January 1, 2011-2018, with 2010 Benchmark*, http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/, accessed February 6, 2019.

[5] Ibid.

4.15 PUBLIC SERVICES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. 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:				
i. Fire protection?			✓	
ii. Police protection?			✓	
iii. Schools?			✓	
iv. Parks?			✓	
v. Other public facilities?			✓	

a. 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:

i. Fire protection?

Less Than Significant Impact. The project is in the service area of the Orange County Fire Authority (OCFA), as well as the surrounding cities including the City of Santa Ana and City of Tustin. The three OCFA fire stations within proximity of the project site include the following:[1]

- *Fire Station No. 70*. This fire station is located at 2301 Old Grand Street, in the City of Santa Ana, approximately 1.0 mile northwest of the project site. This fire station is equipped with an engine.[2]

- *Fire Station No. 72*. This fire station is located at 1688 East 4th Street, Santa Ana, approximately 1.0 mile southwest of the project site. This fire station is equipped with an engine.[3]

1 Orange County Fire Authority, *City Jurisdictions with Fire Stations*, http://www.ocfa.org/Uploads/OCFA%20County%20Map.pdf, accessed September 12, 2016.

2 FireDepartment.net, *Fire Equipment at Orange County Fire Authority*, http://www.firedepartment.net/directory/california/orange-county/irvine/orange-county-fire-authority/fire-equipment, accessed September 13, 2016.

3 FireDepartment.net, *Fire Equipment at Orange County Fire Authority*, http://www.firedepartment.net/directory/california/orange-county/irvine/orange-county-fire-authority/fire-equipment, accessed September 13, 2016.

- *Fire Station No. 21*. This fire station is located at 1241 Irvine Boulevard, Tustin, approximately 1.75 miles from the project site. This fire station is equipped with an engine, medic, patrol, and water tender.[4]

Although the proposed project would result in the construction of two new fast food restaurants and could increase demand for OCFA fire protection facilities, this increase would not require the construction of new or physically altered fire facilities. Although service calls could be slightly increased, there are two fire stations located within one mile of the project site. In addition, the proposed project would be subject to OCFA site/building plan review to ensure that the project meets fire safety requirements. The proposed project would include features such as fire-resistant construction materials, fire alarm/sprinkler systems, hydrants, and adequate fire access for emergency vehicles. Further, the project's demands on OCFA fire protection services would be offset through collection of property revenue, known as the Structural Fire Fund, to ensure adequate fire facilities and staffing. Upon compliance with existing County and OCFA design standards, as well as OCFA's ongoing collection of property tax revenue, impacts concerning fire protection services in this regard would be less than significant.

ii. Police protection?

Less Than Significant Impact. The Orange County Sheriff's Department (OCSD) provides law enforcement services to unincorporated county areas, including the project site. The OCSD headquarters is located at 550 North Flower Street, Santa Ana, which is located approximately 2.60 miles southwest of the project site. In addition, several neighboring jurisdictions, including the City of Tustin, provide back-up police assistance to OCSD in emergency situations.[5]

Although the proposed project would result in the construction of two new fast food restaurants and could increase demand for OSCD sheriff protection facilities, this increase would not require the construction of new or physically altered sheriff facilities. Although service calls could be slightly increased as a result of the project, the project would be subject to site plan review by the County to ensure that it meets County safety requirements. Further, the project's demands on OCSD sheriff protection services would be offset through collection of County General Fund revenues to ensure adequate facilities and staffing. Collection of General Fund revenue and compliance with the County's site plan review process would ensure impacts concerning sheriff protection services are would be less than significant.

iii. Schools?

Less Than Significant Impact. The project site is served by the Tustin Unified School District. However, the proposed project would involve the construction of new restaurant uses on vacant land, and would not result in an increase in population on-site, or indirectly result in the increase in the number of students within the project area. Thus, impacts in this regard would be less than significant.

4 Ibid.
5 City of Tustin, *City of Tustin General Plan, Public Safety Element*, page 11, July 2017.

iv. Parks?

Less Than Significant Impact. The nearest public park to the project site is the Portola Park, located approximately 0.55-mile northwest of the project site, in the City of Santa Ana. The project would construct new restaurant uses, which would not substantially increase the population in the project area. The proposed project is not anticipated to result indirectly in a substantial increase in demands for use of park land. Thus, impacts in this regard would be less than significant.

v. Other public facilities?

Less Than Significant Impact. Other public services that could potentially be impacted by the proposed project include public libraries. The project site is served by the Orange County public library in the City of Tustin, located at 345 East Main Street.[6] Implementation of the proposed project would not result in a significant increase in the use of the Orange County public library services. Thus, impacts in this regard would be less than significant.

REFERENCES

City of Tustin, *City of Tustin General Plan, Public Safety Element*, page 11, July 2017.

FireDepartment.net, *Fire Equipment at Orange County Fire Authority*, http://www.firedepartment. net/directory/california/orange-county/irvine/orange-county-fire-authority/fire-equipment, accessed September 13, 2016.

Google Earth Maps, http://maps.google.com, accessed January 2017.

Orange County Fire Authority, *City Jurisdictions with Fire Stations*, http://www.ocfa.org/Uploads/OCFA%20 County%20Map.pdf, accessed September 12, 2016.

Orange County Public Libraries, *Libraries*, http://ocpl.org/libloc/libraries, accessed September 13, 2016.

[6] Orange County Public Libraries, *Libraries*, http://ocpl.org/libloc/libraries, accessed September 13, 2016.

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4.16 RECREATION

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. 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. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				✓

a. 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?

Less Than Significant Impact. Refer to Response 4.15(a)(4).

b. 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 proposed project does not include recreational facilities or require the construction or expansion of recreational facilities. No impacts would occur in this regard.

REFERENCES

National Park Service, *National Register of Historic Places Program*, http://www.nps.gov/nr/research/, accessed January 4, 2017.

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4.17 TRANSPORTATION/TRAFFIC

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?[1]			✓	
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, plan or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?		✓		

This section is based upon the *Chick-fil-A and In-N-Out at 17th Street and Tustin Avenue in County of Orange Traffic Impact Analysis* (Traffic Impact Analysis) prepared by Michael Baker International, Inc. (Michael Baker), dated March 6, 2019; refer to Appendix G, *Traffic Impact Analysis*. The purpose of the Traffic Impact Analysis is to evaluate potential project impacts related to traffic and circulation in the vicinity of the project site. The evaluation considers impacts on local intersections and regional transportation facilities. It is acknowledged that the Traffic Impact Analysis was originally written in 2016 with the first draft report being dated July 20, 2016, and reflects the year 2016 as existing conditions and Opening Year as 2018. Although there was a delay in time from project initiation, the proposed project site and surrounding conditions have not changed significantly. The surrounding areas around the proposed project site are considered to be "built-out", and no major residential or commercial developments have taken place, nor are anticipated that may significantly affect the study area. Thus, it is unlikely that updating the existing condition from 2016 to 2019 and Opening Year to 2021 would not have any significant changes, and the results of the study would be similar. It is concluded that the findings and recommendations presented in the traffic impact analysis are still adequate for the purposes of this analysis.

[1] While this Appendix G Checklist Question has been modified by the Natural Resources Agency to address consistency with CEQA Guidelines section 15064.3, subdivision (b), which relates to use of the vehicle miles travelled (VMT) as the methodology for evaluating traffic impact, the County has not yet adopted a VMT methodology to address this updated Appendix G Checklist Question. Thus, the Traffic Impact Analysis employs the level of service (LOS) method to evaluate the project's traffic impacts.

The following analysis scenarios are evaluated in this section:

- Existing 2016 Conditions;
- Existing Plus Project Conditions;
- Project Opening Year (2018) Without Project Conditions;
- Project Opening Year (2018) With Project Conditions;
- Buildout 2035 Without Project Conditions; and
- Buildout 2035 With Project Conditions.

The Traffic Impact Analysis follows County of Orange traffic study guidelines and is consistent with the traffic impact analysis guidelines set forth in the Orange County Congestion Management Program (CMP).[2]

STUDY AREA

The traffic analysis study area is generally comprised of those locations which have the greatest potential to experience significant traffic impacts due to the proposed project as defined by the Lead Agency (the County). The study area generally includes those intersections that are immediately adjacent or in close proximity to the project site; in the vicinity of the project site that are documented to have current or projected future adverse operational issues; and in the vicinity of the project site that are forecast to experience a relatively greater percentage of project-related vehicular turning movements (e.g., at freeway ramp intersections).

The Traffic Impact Analysis considered 16 study area intersections; refer to Table 4.17-1, *Study Intersections*, and Exhibit 4.17-1, *Study Area Intersections*, for a listing of these intersections studied. For the purposes of the project's Traffic Impact Analysis, the project's proposed driveways are analyzed as study area intersections (Intersection Nos. 13, 14, and 15).

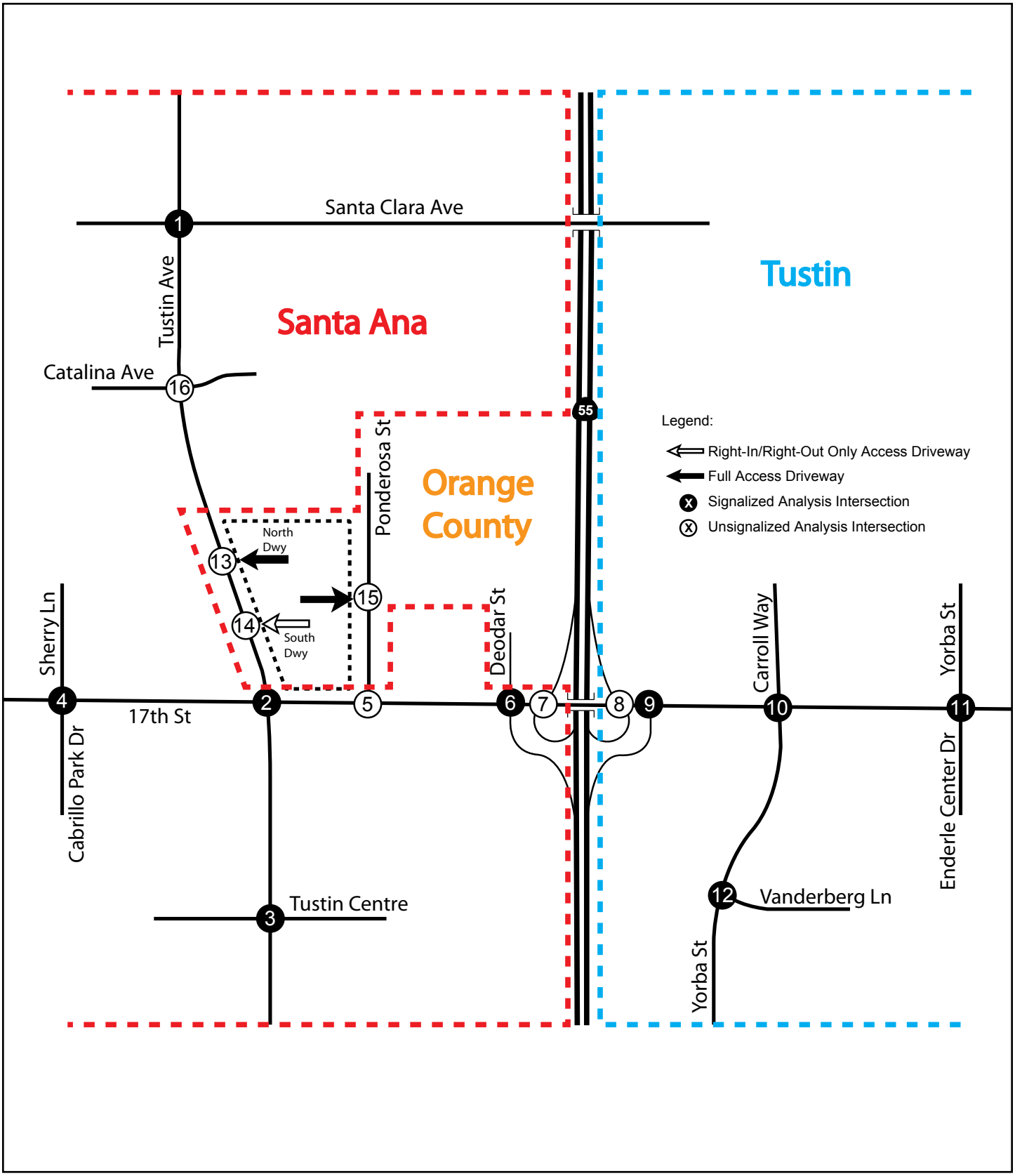
[2] Orange County Transportation Authority, *2017 Orange County Congestion Management Program*, October 2017.

Table 4.17-1
Study Intersections

Intersection Nos.	Study Intersection
City of Santa Ana	
1	Tustin Avenue at Santa Clara Avenue
2	Tustin Avenue at 17th Street
3	Tustin Avenue at Tustin Centre
4	Sherry Lane/Cabrillo Park Avenue at 17th Street
5	Ponderosa Street at 17th Street
6	Deodar Street/State Route 55 (SR-55) Southbound On-Ramp at 17th Street
7	SR-55 Southbound Off-Ramps at 17th Street
16	Tustin Avenue at Catalina Avenue
City of Tustin	
8	SR-55 Northbound On-Ramps at 17th Street
9	Mimi's Café Driveway/SR-55 Northbound Off-Ramp at 17th Street
10	Carroll Way/Yorba Street at 17th Street
11	Yorba Street/Enderle Center Drive at 17th Street
12	Yorba Street at Vandenberg Lane
County of Orange	
13[1]	Tustin Avenue at Annie's Salon & Spa Driveway/the North Project Driveway (future)
14[1]	Tustin Avenue at 7-Eleven Driveway/the South Project Driveway (future)
15	Ponderosa Street at Project Driveway (future)

Source: Michael Baker International, Inc., Chick-fil-A and In-N-Out at 17th Street and Tustin Avenue in County of Orange Traffic Impact Analysis, March 6, 2019.

Notes:
[1] Intersection Nos. 13 and 14 are located to the west of the project site at existing driveways along Tustin Avenue. These intersections are the location of the project's future driveways along Tustin Avenue.



NOT TO SCALE

Michael Baker INTERNATIONAL

03/19 | JN 151800

CHICK-FIL-A/IN-N-OUT 17TH AND TUSTIN
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Study Area Intersections

Exhibit 4.17-1

Intersection Capacity Utilization Method for Signalized Intersection

The signalized intersections are analyzed using the intersection capacity utilization (ICU) methodology. The ICU technique estimates the volume-to-capacity (V/C) ratio for an intersection based on the individual V/C ratios for the conflicting traffic movements. The ICU value represents the percent signal green time or capacity of the intersection movements. It should be noted that the ICU method assumes uniform traffic distribution per intersection approach lane and optimal signal timing.

The ICU value translates to a level of service (LOS) estimate, which is a relative measure of the intersection performance. The grade scales of LOS have been defined with the corresponding ICU value range as shown in Table 4.17-2, *LOS and V/C Ranges*. The ICU value is the sum of the critical V/C ratios at an intersection; it is not intended to be indicative of the LOS of each of the individual turning movements.

Table 4.17-2
LOS and V/C Ranges

Level of Service	Intersection Capacity Utilization (ICU)	
	Volume to Capacity Ratio (V/C)	Description
A	≤ 0.600	Excellent
B	> 0.601 ≤ 0.700	Very Good
C	> 0.701 to ≤ 0.800	Good
D	> 0.801 to ≤ 0.900	Fair
E	> 0.901 to ≤ 1.000	Poor
F	> 1.000	Failure

Source: Michael Baker International, Inc., Chick-fil-A and In-N-Out at 17th Street and Tustin Avenue in County of Orange Traffic Impact Analysis, March 6, 2019.

ICU calculations use a lane capacity of 1,700 vehicles per lane per hour (vph) for left-turn, through right-turn lanes, and a capacity of 1,955 vph for right turn lanes with right-turn overlap phasing. A five percent clearance interval is included in the ICU analysis based on Orange County Congestion Management Plan (CMP) intersections. For City of Santa Ana intersections, a 1,600 vph capacity for left turns is used.

Highway Capacity Manual Method for Unsignalized Intersection

The 2010 highway capacity manual (HCM) analysis methodology describes the operation of an intersection using a range of LOS from LOS A (free-flow conditions) to LOS F (severely congested conditions); refer to Table 4.17-3, *HCM – LOS and Delay Ranges for Signalized and Unsignalized Intersections*.

LOS is based on the average stopped delay per vehicle for all movements of signalized intersections and all-way stop-controlled intersections. For one-way or two-way stop-controlled intersections, LOS is based on the worst stop-controlled approach.

HCM analysis has also been conducted for the two signalized intersections on 17th Street at the SR-55 freeway ramp intersections (Intersections Nos. 7 and 10).

Table 4.17-3
HCM – LOS and Delay Ranges for Signalized and Unsignalized Intersections

Level of Service	Delay (seconds/vehicle)	
	Signalized Intersections	Unsignalized Intersections
A	≤ 10.0	≤ 10.0
B	> 10.0 to ≤ 20.0	> 10.0 to ≤ 15.0
C	> 20.0 to ≤ 35.0	> 15.0 to ≤ 25.0
D	> 35.0 to ≤ 55.0	> 25.0 to ≤ 35.0
E	> 55.0 to ≤ 80.0	> 35.0 to ≤ 50.0
F	> 80.0	> 50.0

Source: Michael Baker International, Inc., Chick-fil-A and In-N-Out at 17th Street and Tustin Avenue in County of Orange Traffic Impact Analysis, March 6, 2019.

Peak Hour Performance Criteria

The County of Orange CMP has established an intersection operation standard of LOS D or better. The City of Santa Ana has an intersection operation standard of LOS D on arterial street intersections, except in major development areas. The City of Tustin has also established an intersection operation standard of LOS D.

TRAFFIC IMPACT CRITERIA AND THRESHOLDS

County of Orange

It is the County's objective to provide for safe and efficient movement of traffic on smartstreets, 8-lane, 6-lane, 4-lane, and 2-lane arterials so as to provide access to the regional circulation network (County General Plan Transportation Element Objective 3.2). The County of Orange also has a policy that within three years of the issuance of the first use and occupancy permit for a development project or within five years of the issuance of a finished grading permit or building permit for said development project, whichever comes first, that the necessary improvements to arterial highways, to which the project contributes measurable traffic, are constructed to and completed to attain LOS D at the intersections under the sole control of the County (County General Plan Growth Management Element Policy 3).

Traffic impacts at an intersection are to be considered "significant" when any of the following changes in the V/C ratios occur between the "Without Project" and the "With Project" conditions as listed in Table 4.17-4, *Traffic Impact Threshold*, and operating at LOS E or worse:

Table 4.17-4
Traffic Impact Threshold

LOS Without Project	V/C Ratio Project Difference
LOS E or F	> 0.01

Source: Michael Baker International, Inc., Chick-fil-A and In-N-Out at 17th Street and Tustin Avenue in County of Orange Traffic Impact Analysis, March 6, 2019.

Mitigation must be identified for intersections that show a significant project impact per the thresholds shown in Table 4.17-4 and operating at LOS E or worse. The LOS with mitigation should be improved to the "Pre-Project" conditions. The following three study intersections are located within the County of Orange:

13. Tustin Avenue at Annie's Salon & Spa Driveway/the North Project Driveway (future);

14. Tustin Avenue at 7-Eleven Driveway/the South Project Driveway (future); and

15. Ponderosa Street at Project Driveway (future).

Thresholds of significance are set by the Orange County CMP for analysis of impacts beyond the lead agency's jurisdiction. If the project contribution is greater than 0.03 at CMP intersections (the impact threshold specified in the CMP), and if the location is at LOS E or poorer, the impact is significant. If the location is at LOS E or poorer and a mitigation measure is feasible to improve the LOS to Level D or better, the measure is suggested for cumulative impacts. However, if the contribution of the project is less than 0.03 the project is not deemed to impact the location. None of the study area intersections listed above, nor intersections along arterials in the project vicinity, are identified as CMP intersections. Further, as CMP intersections are determined based on deficiency impacts caused by more than one local jurisdiction within Orange County, it is unlikely that the project's future driveway intersections would be considered CMP intersections too.

City of Santa Ana

The Circulation and Land Use Elements of the City of Santa Ana General Plan for intersections located outside of Major Development Areas (MDA), set LOS D as the threshold for an acceptable service level. The City of Santa Ana considers LOS E as the maximum acceptable service level for intersections located within an MDA. These criteria are consistent with Measure M target levels, and are either more stringent than, or meet CMP criteria which designates LOS E as the minimum acceptable LOS. The following eight study intersections are located within the City of Santa Ana:

1. Tustin Avenue at Santa Clara Avenue;

2. Tustin Avenue at 17th Street;

3. Tustin Avenue at Tustin Centre;

4. Sherry Lane / Cabrillo Park Avenue at 17th Street;

5. Ponderosa Street at 17th Street;

6. Deodar Street/SR-55 Southbound On-Ramp at 17th Street;

7. SR-55 Southbound Off-Ramps at 17th Street; and

16. Tustin Avenue at Catalina Avenue.

A project is considered to have a significant traffic impact at an intersection if traffic LOS deteriorates to an unacceptable LOS (i.e., LOS E or F at intersections outside of MDA, LOS F within MDA) with the addition of project traffic. For study intersections located outside of MDA, if the intersection is expected to operate at an unacceptable LOS (LOS E or F) under base conditions (conditions without the project), measures to achieve acceptable levels of service at the intersections should be recommended. For study intersections located within MDA, if the intersection is expected to operate at unacceptable levels of service (intersection LOS F at Santa

Ana intersections within MDA) under base conditions (conditions without the project), improvement and recommendations are requested to achieve acceptable levels of service.

Based on Exhibit A-5 of the City of Santa Ana General Plan Land Use Element, Intersection No. 5, Intersection No. 6, and Intersection No. 7 are part of the Tustin Avenue Corridor MDA. These MDAs are expected to generate the highest level of development activity in the City as centers of commerce.

City of Tustin

The City of Tustin has determined that LOS D (peak hour ICU ≤ 0.90 for signalized intersections, stop delay ≤ 25 seconds for unsignalized intersections) is the minimum acceptable LOS for peak hour operation in the City. For LOS poorer than the acceptable LOS, mitigation of the project contribution is required to bring the intersection back to an acceptable LOS or to no-project conditions. The following five study intersections are located within the City of Tustin:

8. SR-55 Northbound On-Ramps at 17th Street;
9. Mimi's Café Driveway / SR-55 Northbound Off-Ramp at 17th Street;
10. Carroll Way / Yorba Street at 17th Street;
11. Yorba Street / Enderle Center Drive at 17th Street; and
12. Yorba Street at Vandenberg Lane.

Existing Roadway System

This section describes the existing conditions of the study area including the existing roadway description, intersection geometry, and traffic volumes.

- *17th Street* is a six-lane divided roadway with raised median trending in an east-west direction. The posted speed limit is 40 miles per hour on 17th Street. On-street parking is prohibited. There are no bike lanes on 17th Street within the study area.
- *Tustin Avenue*, trending in an north-south direction, is a six-lane divided roadway with a raised center median south of 17th Street; and a five-lane (two northbound and three southbound lanes) divided roadway with a two-way left-turn lane between 17th Street and Catalina Avenue; and a six-lane divided roadway with a two-way left-turn lane north of Catalina Avenue. The posted speed limit is 40 miles per hour on Tustin Avenue. On-street parking is prohibited. There are no bike lanes on Tustin Avenue within the study area.
- *Ponderosa Street* is a two-lane undivided roadway trending in a north-south direction. There is no posted speed limit on Ponderosa Street. On-street parking is permitted on both sides of the street. There are no bike lanes on Ponderosa Street within the study area.

- *Deodar Street* is a two-lane undivided residential street with a yellow centerline stripe trending in a north-south direction. There is no posted speed limit on Deodar Street. On-street parking is permitted on both sides of the street. There are no bike lanes on Deodar Street within the study area.

- *Santa Clara Avenue* is a four-lane divided roadway with a two-way left-turn lane trending in an east-west direction. The posted speed limit is 40 miles per hour on Santa Clara Avenue. On-street parking is prohibited on Santa Clara Avenue. There are no bike lanes on Santa Clara Avenue within the study area.

- *Yorba Street*, south of 17th Street, is a four-lane divided roadway with a two-left turn lane trending in a north-south direction. The posted speed limit is 40 miles per hour on Yorba Street. On-street parking is prohibited on Yorba Street. There are no bike lanes on Yorba Street within the study area.

- *Yorba Street*, north of 17th Street, is a four-lane undivided roadway with a double yellow centerline stripe trending in a north-south direction. The posted speed limit is 40 miles per hour on Yorba Street. On-street parking is generally permitted on Yorba Street except at several locations with red curbs. There are no bike lanes on Yorba Street within the study area.

- *Carroll Way* is a two-lane undivided roadway with a double yellow centerline stripe trending in a north-south direction. There is no posted speed limit on Carroll Way. On-street parking is prohibited on Carroll Way. There are no bike lanes on Carroll Way within the study area.

- *Enderle Center Drive* is a two-lane divided roadway with a two-way left turn lane trending in a north-south direction. There is no posted speed on Enderle Center Drive. On-street parking is generally permitted on Enderle Center Drive. There are no bike lanes on Enderle Center Drive within the study area.

- *Vandenberg Lane* is a two-lane undivided roadway with a double yellow centerline stripe trending in an east-west direction. The posted speed limit is 35 miles per hour on Vandenberg Lane. On-street parking is permitted. There are no bike lanes on Vandenberg Lane within the study area.

- *Catalina Avenue* is a two-lane divided roadway on the east of Tustin Avenue, and a two-lane divided roadway on the west side of Tustin Avenue. Catalina Avenue trends in an east-west direction. The posted speed limit is 25 miles per hour. Street parking is permitted west of Tustin Avenue.

- *Sherry Lane/Cabrillo Park Drive* is a four-lane divided roadway south of 17th Street (Cabrillo Park Drive), and a two-lane undivided roadway north of 17th Street (Sherry Lane); trending in a north-south direction. The posted speed limit on Cabrillo Park Drive is 35 miles per hour. There is no posted speed limit on Sherry Lane. Street parking is permitted on Sherry Lane, while it is prohibited on Cabrillo Park Drive.

- *Tustin Centre* provides access to office buildings to the east, and provides access to commercial/retail/restaurant buildings to the west. There is no posted speed limit on Tustin Centre. Street parking is prohibited.

- *SR-55 On-/Off-Ramps* provides access to SR-55 along 17th Street and is a partial cloverleaf configuration. The SR-55 Southbound Off-Ramp and SR-55 Northbound On-Ramp are unsignalized intersections. The SR-55 Southbound On-Ramp and SR-55 Northbound Off-Ramp are signalized intersections.

Existing Conditions Traffic Volumes

To determine the existing operation of the study intersections, weekday morning (a.m.), weekday afternoon (p.m.), and Saturday Mid-Day (MD) peak hour intersection movement counts were collected in June 2016. Weekday morning peak period intersection counts were collected from 6:00 a.m. to 9:00 a.m., weekday afternoon peak period intersection counts were collected from 3:00 p.m. to 7:00 p.m., and Saturday MD peak period intersection counts were collected from 11:00 a.m. to 2:00 p.m. The counts used in this analysis were taken from the highest hour within the peak period counted. Traffic count data sheets are included in Appendix A of Appendix G. 24-hour roadway segment counts were also collected on 17th Street and Tustin Avenue (refer to Appendix A of Appendix G).

Existing Conditions Intersection Analysis

Table 4.17-5, *Existing Conditions Intersection Analysis*, summarizes the intersection LOS analysis results for existing weekday a.m., weekday p.m., and Saturday MD peak hour conditions. Appendix B of Appendix G includes the existing conditions intersection operations analysis worksheets. As shown in Table 4.17-5, all study area intersections are operating at LOS D or better, except at the following four locations:

2. Tustin Avenue at 17th Street – LOS E (p.m.);

13. Tustin Avenue at Annie's Salon & Spa Driveway – LOS F (p.m.);

14. Tustin Avenue at 7-Eleven Driveway – LOS E (a.m.); and,

16. Tustin Avenue at Catalina Avenue – LOS F (a.m., p.m., and MD).

Table 4.17-5
Existing Conditions Intersection Analysis

Intersection			Existing Conditions					
			AM		PM		MD	
No.	Name	Type*	V/C[1]	LOS	V/C[1]	LOS	V/C[1]	LOS
1	Tustin Avenue at Santa Clara Avenue	TS	0.851	D	0.652	B	0.486	A
2	Tustin Avenue at 17th Street	TS	0.757	C	**0.921**	**E**	0.563	A
3	Tustin Avenue at Tustin Centre	TS	0.593	A	0.578	A	0.296	A
4	Sherry Lane/Cabrillo Park Avenue at 17th Street	TS	0.517	A	0.607	B	0.506	A
5	Ponderosa Street at 17th Street	CSS	12.7	B	13.7	B	12.1	B
	Denny's Driveway	CSS	12.0	B	13.0	B	10.9	B
6	Deodar Street/SR-55 Southbound On-Ramp at 17th Street	TS	0.614	B	0.581	A	0.617	A
	HCM Analysis	*TS*	*17.0*	*B*	*12.1*	*B*	*13.7*	*B*
7	SR-55 Southbound Off-Ramps at 17th Street	UNC	0.0	A	0.0	A	0.0	A
8	SR-55 Northbound On-Ramps at 17th Street	UNC	0.0	A	0.0	A	0.0	A
9	Mimi's Café Driveway/SR-55 Northbound Off-Ramp at 17th Street	TS	0.511	A	0.678	B	0.577	A

Table 4.17-5, continued

Intersection			Existing Conditions					
			AM		PM		MD	
No.	Name	Type*	V/C[1]	LOS	V/C[1]	LOS	V/C[1]	LOS
	HCM Analysis	*TS*	*20.6*	*C*	*21.7*	*C*	*24.1*	*C*
10	Carroll Way/Yorba Street at 17th Street	TS	0.535	A	0.655	B	0.573	A
11	Yorba Street/Enderle Center Drive at 17th Street	TS	0.585	A	0.632	B	0.515	A
12	Yorba Street at Vandenberg Lane	TS	0.355	A	0.279	A	0.186	A
13	Tustin Avenue at Annie's Salon & Spa Driveway/the North Project Driveway (future)	CSS	29.5	D	**63.5**	**F**	15.7	C
14	Tustin Avenue at 7-Eleven Driveway/the South Project Driveway (future)	CSS	**38.5**	**E**	14.0	B	13.2	B
15	Ponderosa Street/ Project Driveway	CSS	**--**	**--**	--	--	--	--
16	Tustin Avenue/ Catalina Avenue	CSS	**1641.1**	**F**	**357.9**	**F**	**75.3**	**F**

Notes:
* Intersection Type: TS: Traffic Signal; CSS: Cross-Street Stop; UNC: Uncontrolled
1 Signalized Intersections: Intersection Capacity Utilization (ICU) Analysis Method, Volume to Capacity (V/C) Ration
Unsignalized Intersections: Highway Capacity Manual (HCM) Analysis Method, Average Delay (seconds per vehicle)

Source: Michael Baker International, Inc., Chick-fil-A and In-N-Out at 17th Street and Tustin Avenue in County of Orange Traffic Impact Analysis, March 6, 2019.

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?

Less Than Significant Impact With Mitigation Incorporated. Project-related impacts on the surrounding roadway system are analyzed below.

Project Trip Generation

To determine trip generation of the proposed project, trip generation rates published in the *Institute of Transportation Engineers* (ITE) *Trip Generation Manual* (9th Edition, 2012) for "fast-food restaurant with drive-thru window" were used. Table 4.17-6, *ITE Trip Assumptions*, and Table 4.17-7, *Proposed Project Trip Generation*, summarizes ITE trip generation rates used to calculate the number of trips generated by the existing condition and forecast to be generated by the proposed project. Weekday morning (a.m.) peak period data are not presented for the proposed In-N-Out restaurant as it would not serve breakfast and would not be operational during the weekday a.m. peak period.

Table 4.17-6
ITE Trip Assumptions

Trip Rates													
Project				Daily	Weekday A.M. Peak			Weekday P.M. Peak			Saturday MD		
No.	Land Use	Code[1]	Unit[2]		Total	In (%)	Out (%)	Total	In (%)	Out (%)	Total	In (%)	Out (%)
1	Fast Food with Drive-Thru	ITE 934	TSF	**496.12**	**45.42**	51	49	**32.65**	52	48	**59.00**	51	49

Notes:
1. Institute of Transportation Engineers (ITE), Trip Generation Manual, 9th Edition, 2012
2. TSF: Thousand Square Feet
3. A.M. Pass-By Trips: ITE, *Trip Generation Manual*, 9th Edition, Table 5.23 Pass-By Trips and Diverted Linked Trips, Weekday, P.M. Peak Period, Fast-Food Restaurant with Drive-Thru Window, Average Pass-By Trip Percentage: 49 percent.
P.M. and Daily Pass-By Trips: ITE, *Trip Generation Manual*, 9th Edition, Table 5.24 Pass-By Trips and Diverted Linked Trips, Weekday, P.M. Peak Period, Fast-Food Restaurant with Drive-Thru Window, Average Pass-By Trip Percentage = 50 percent
To be conservative, a 30 percent pass-by reduction factor is utilized even though ITE shows a higher rate.

Source: Michael Baker International, Inc., Chick-fil-A and In-N-Out at 17th Street and Tustin Avenue in County of Orange Traffic Impact Analysis, March 6, 2019.

Table 4.17-7
Proposed Project Trip Generation

Traffic Generation												
Project			Daily	Weekday A.M. Peak			Weekday P.M. Peak			Saturday MD		
No.	Land Use	Quantity[2]		Total	In	Out	Total	In	Out	Total	In	Out
CFA	Fast Food with Drive-Thru	5.577 TSF	**2,767**	**253**	129	124	**182**	95	87	**329**	168	161
INO	Fast Food with Drive-Thru	4.267 TSF	**2,117**	**-**	-	-	**139**	72	67	**251**	128	123
		Subtotal Trips	**4,884**	**253**	129	124	**321**	167	154	**580**	296	284
	Pass-By Trips[3]	*30%*	***-1,465***	***-76***	*-39*	*-37*	***-96***	*-50*	*-46*	***-174***	*-89*	*-85*
		Total Net Trips	**3,419**	**177**	90	87	**225**	117	108	**406**	207	199

Notes:
1. Institute of Transportation Engineers (ITE), Trip Generation Manual, 9th Edition, 2012
2. TSF: Thousand Square Feet
3. A.M. Pass-By Trips: ITE, *Trip Generation Manual*, 9th Edition, Table 5.23 Pass-By Trips and Diverted Linked Trips, Weekday, P.M. Peak Period, Fast-Food Restaurant with Drive-Thru Window, Average Pass-By Trip Percentage: 49 percent.
   P.M. and Daily Pass-By Trips: ITE, *Trip Generation Manual*, 9th Edition, Table 5.24 Pass-By Trips and Diverted Linked Trips, Weekday, P.M. Peak Period, Fast-Food Restaurant with Drive-Thru Window, Average Pass-By Trip Percentage = 50 percent
   To be conservative, a 30 percent pass-by reduction factor is utilized even though ITE shows a higher rate.

Source: Michael Baker International, Inc., Chick-fil-A and In-N-Out at 17th Street and Tustin Avenue in County of Orange Traffic Impact Analysis, March 6, 2019.

As documented in the ITE *Trip Generation Manual* (9th Edition, 2012), a pass-by trip reduction adjustment is applicable to fast-food restaurant land uses located along busy arterial highways attracting vehicle trips already on the roadway; this is particularly the case when the roadway is experiencing peak operating conditions. For example, during the weekday p.m. peak hour, a motorist already traveling along Tustin Avenue or 17th Street between work and home or other destinations may stop and eat or drive-thru at the proposed restaurants before continuing to his/her intended destination. A pass-by discount under this example would reduce or eliminate both the inbound trip and the outbound trip from the surrounding roadway circulation system since the vehicle was already traveling on the roadway. Without the pass-by trip discount, two trips would be generated: an inbound trip to the project site, and an outbound trip from the project site. Weekday a.m. and p.m. peak hour pass-by trip reduction percentages of 49 and 50 percent are identified in the ITE *Trip Generation Manual*. To be conservative, a 30 percent pass-by trip reduction was used to estimate the project traffic, which would reduce the amount of trip credit taken compared to 49 percent identified in the ITE *Trip Generation Manual*.

Although the ITE *Trip Generation Manual* does not provide pass-by trip reduction for Saturday MD peak hour conditions, it is reasonable to assume that some percentage of the forecast Saturday MD peak hour trip generation will attract trips already on the roadway. A 30 percent pass-by trip reduction is also applied to Saturday MD conditions.

As shown in Table 4.17-7, the project is anticipated to generate 3,419 net daily trips with 177 net a.m. peak hour trips, 225 net p.m. peak hour trips, and 406 net Saturday MD trips.

Future Traffic Forecast

This section presents the future traffic forecast for each of the analysis scenarios evaluated in the Traffic Impact Analysis. The following future conditions are presented:

- Existing Plus Project Conditions;
- Opening Year 2018 Without Project Conditions;

- Opening Year 2018 With Project Conditions;
- Buildout 2035 Without Project Conditions; and
- Buildout 2035 With Project Conditions.

Ambient Growth Rate

A conservative background ambient growth rate of one percent (1 percent) per year is used to account for the growth of existing traffic along the arterial roadways when the project is anticipated to open in Year 2018.

Cumulative Development Traffic

In addition to the ambient growth rate, the future traffic forecast included projections from other cumulative projects in the study area. Based on the development status information provided by the City of Santa Ana, City of Tustin, and County of Orange, a total of 17 cumulative developments were identified. The City of Tustin and County of Orange indicated that there are no active projects in the study area.

Table 4.17-8, *Cumulative Projects*, summarizes the cumulative development trip generation. As shown in Table 4.17-8, the 17 cumulative developments are anticipated to generate 12,492 daily trips with 858 a.m. peak hour trips, 1,110 p.m. peak hour trips and 1,106 Saturday MD trips. Appendix C of Appendix G contains the trip generation and distribution information for the 17 cumulative developments.

Buildout 2035 Traffic Forecast

Traffic forecast data from the Orange County Traffic Analysis Model (OCTAM) has been utilized to estimate the buildout 2035 baseline traffic conditions. Orange County Transportation Authority (OCTA) provided the 2035 and 2010 a.m. and p.m. peak period model runs. Appendix D of Appendix G includes the traffic model forecast data provided by OCTA staff.

Michael Baker reviewed the 2035 and 2010 traffic model data and calculated the incremental traffic increase for the study area roadways during the a.m. and p.m. peak hours. The model peak hour incremental growth is added to the existing traffic count to derive the 2035 baseline traffic conditions. Since the traffic model does not contain a Saturday MD peak hour forecast, this study used the model growth trend observed for weekday p.m. peak hour traffic volumes between existing and year 2035 conditions. Appendix E of Appendix G shows the post-processed 2035 baseline (Without Project) traffic volumes. Manual adjustments were made to achieve reasonable flow conservation along the roadway links between adjacent intersections. A reasonable flow conservation means that the number of vehicles entering and exiting a roadway section is balanced.

Table 4.17-8
Cumulative Projects

Traffic Generation													
Cumulative			2-Way Daily	A.M. Peak			P.M. Peak			MD Peak		
No.	Address/Applicant	Land Use[1]		Total	In	Out	Total	In	Out	Total	In	Out
1	1440 E. 1st Street/ AMCAL First Street Family Apartments	69 DU apartments	**459**	**35**	7	28	**43**	28	15	**35**	23	12
2	628 E. Washington Avenue/Certified Transportation	7,165 SF bus terminal maintenance building	**179**	**6**	4	2	**5**	2	3	**6**	3	3
3	923 N. Santiago/ Depot at Santiago	70 DU apartments; 9,000 SF retail/office	**735**	**41**	10	31	**66**	39	27	**68**	4	28
4	2222 E. 1st Street/East First Street Apartments	443 DU senior housing	**1,524**	**89**	31	58	**115**	62	53	**138**	80	58
5	2151 E. 1st Street/ First Street Care Home	72 DU supportive housing	**155**	**4**	3	1	**12**	7	5	**12**	7	5
6	1975 E. 17th Street/ Homeplace Center Expansion	9,500 SF commercial	**406**	**9**	6	3	**35**	17	18	**46**	24	22
7	627 E. Washington Avenue/Lotus Townhomes	8 DU townhomes	**46**	**4**	1	3	**4**	3	1	**4**	2	2
8	1907 E. 1st Street/ Lyon Communities	2,424 SF commercial; 254 DU apartments	**1,762**	**131**	26	105	**164**	105	59	**140**	90	50
9	1666 N. Main Street/Meta Housing Adaptive Reuse	58 DU apartments	**386**	**30**	6	24	**36**	23	13	**30**	20	10
10	555 E. Memory Lane/ Park View at Town & Country Manor	174 DU apartments	**1,157**	**88**	17	71	**108**	70	38	**90**	59	31
11	1703 E. 17th Street/ Rocket Express Car Wash	4,995 SF car w ash	**952**	**70**	35	35	**70**	35	25	**70**	35	35
12	1584 E. Santa Clara Avenue/ Sexlinger Homes & Orchard	24 DU single-family homes	**228**	**18**	5	13	**24**	15	9	**22**	12	10
13	301 E. Jeanette Lane/ The 301	182 DU multi-family residential	**1,057**	**80**	13	67	**95**	64	31	**86**	46	40
14	200 N. Cabrillo Park Drive/ The Madison Mixed-Use	213 DU apartments; 4 DU live/work; 6,325 SF commercial	**1,628**	**113**	24	89	**150**	94	56	**133**	84	49
15	818 E. 3rd Street/ The Salvation Army	18,772 SF emergency shelter	**171**	**11**	7	4	**10**	5	5	**66**	47	19
16	1008 E. 4th Street/ Tom's Truck Residential Development	170 DU single-family homes	**1,618**	**127**	32	95	**170**	107	63	**158**	85	73
17	930 N. Grand Avenue/ Train Station Live-Work	5 DU live/work	**29**	**2**	-	2	**3**	2	1	**2**	1	1
		Total Cumulative Trips	**12,492**	**858**	227	631	**1,110**	678	432	**1,106**	658	448

Notes:
1. SF: square feet; DU: dwelling unit

Source: Michael Baker International, Inc., Chick-fil-A and In-N-Out at 17th Street and Tustin Avenue in County of Orange Traffic Impact Analysis, March 6, 2019.

Future Conditions Intersection Analysis

This section presents the intersection operations analysis for the following future traffic scenarios, based on existing and initial geometry:

- Existing Plus Project Conditions;
- Opening Year 2018 Without Project Conditions;
- Opening Year 2018 With Project Conditions;
- Buildout 2035 Without Project Conditions; and
- Buildout 2035 With Project Conditions.

Existing Plus Project Conditions Intersection Analysis

Table 4.17-9, *Existing Plus Project Conditions Intersection Analysis Summary*, summarizes the weekday a.m., weekday p.m., and Saturday MD peak hour intersection operations analysis results for "Existing Plus Project Conditions", based on existing and initial geometry. Appendix F of Appendix G includes the "Existing Plus Project Conditions" intersection operations analysis worksheets. As shown in Table 4.17-9, all study intersections are projected to operate at LOS D or better, except for the following four intersections:

2. Tustin Avenue at 17th Street – LOS E (p.m.);
13. Tustin Avenue at Annie's Salon & Spa Driveway/the North Project Driveway (future) – LOS F (a.m., p.m., and MD);
14. Tustin Avenue at 7-Eleven Driveway/the South Project Driveway (future) – LOS E (a.m.); and
16. Tustin Avenue at Catalina Avenue – LOS F (a.m., p.m., and MD).

Table 4.17-9 shows that the project would contribute to a significant project impact at three of these four study intersections under the "Existing Plus Project Conditions" based on the impact threshold criteria, which are as follows:

2. Tustin Avenue at 17th Street – LOS E (p.m.);
13. Tustin Avenue at Annie's Salon & Spa Driveway/the North Project Driveway (future) – LOS F (a.m., p.m., and MD);
16. Tustin Avenue at Catalina Avenue – LOS F (a.m., p.m., and MD).

Table 4.17-9
Existing Plus Project Conditions Intersection Analysis Summary

Intersection			Existing Conditions						Existing Plus Project Conditions						Significant Project Impact			
			AM		PM		MD		AM		PM		MD		Increase			Project Impact[2]
No.	Name	Type*	V/C[1]	LOS	V/C[1]	LOS	V/C[1]	LOS	V/C[1]	LOS	V/C[1]	LOS	V/C[1]	LOS	AM	PM	MD	
1	Tustin Avenue at Santa Clara Avenue	TS	0.851	D	0.652	B	0.486	A	0.876	D	0.656	B	0.522	A	0.025	0.004	0.036	No
2	Tustin Avenue at 17th Street	TS	0.757	C	**0.921**	**E**	0.563	A	0.759	C	**0.951**	**E**	0.614	B	0.002	**0.030**	0.051	**Yes**
	• **Add 3rd northbound thru lane**								*0.759*	*C*	*0.825*	*D*	*0.585*	*A*	*0.002*	*-0.096*	*0.022*	*No*
3	Tustin Avenue at Tustin Centre	TS	0.593	A	0.578	A	0.296	A	0.595	A	0.580	A	0.300	A	0.002	0.002	0.004	No
4	Sherry Lane/ Cabrillo Park Avenue at 17th Street	TS	0.517	A	0.607	B	0.506	A	0.522	A	0.613	B	0.517	A	0.005	0.006	0.011	No
5	17th Street at Ponderosa Street	CSS	12.7	B	13.7	B	12.1	B	13.3	B	14.8	B	13.6	B	0.6	1.1	1.5	No
	17th Street at Denny's Driveway	CSS	12.0	B	13.0	B	10.9	B	12.2	B	13.2	B	11.1	B	0.2	0.2	0.2	No
6	Deodar Street/SR-55 Southbound On-Ramp at 17th Street	TS	0.614	B	0.581	A	0.617	B	0.619	B	0.588	A	0.632	B	0.005	0.007	0.015	No
	HCM Analysis	*TS*	*17.0*	*B*	*12.1*	*B*	*13.7*	*B*	*17.2*	*B*	*12.1*	*B*	*14.1*	*B*	*0.2*	*0.0*	*0.4*	*No*
7	SR-55 Southbound Off-Ramps at 17th Street	UNC	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	0.0	0.0	No
8	SR-55 Northbound On-Ramps at 17th Street	UNC	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	0.0	0.0	No
9	Mimi's Café Driveway/SR-55 Northbound Off-Ramp at 17th St	TS	0.511	A	0.678	B	0.577	A	0.516	A	0.859	D	0.589	A	0.005	0.181	0.012	No
	HCM Analysis	*TS*	*20.6*	*C*	*21.7*	*C*	*24.1*	*C*	*20.9*	*C*	*22.3*	*C*	*26.0*	*C*	*0.3*	*0.6*	*1.9*	*No*
10	Carroll Way/Yorba Street at 17th St	TS	0.535	A	0.655	B	0.573	A	0.538	A	0.660	B	0.581	A	0.003	0.005	0.008	No
11	Yorba Street/Enderle Center Drive at 17th Street	TS	0.585	A	0.632	B	0.515	A	0.586	A	0.635	B	0.519	A	0.001	0.003	0.004	No
12	Yorba Street at Vandenberg Lane	TS	0.355	A	0.279	A	0.186	A	0.356	A	0.281	A	0.189	A	0.001	0.002	0.003	No
13	Tustin Avenue at Salon & Spa Driveway	CSS	29.5	D	**63.5**	**F**	15.7	C	30.2	D	**133.8**	**F**	23.1	C	0.7	**70.3**	7.4	**Yes**
	• **Restrict eastbound left turn**								*30.5*	*D*	*12.3*	*B*	*11.7*	*B*	*1.0*	*-51.2*	*-4.0*	*No*
	Tustin Avenue at the North Project Driveway (future)	CSS							**158.8**	**F**	**2,314.9**	**F**	**282.9**	**F**	**158.8**	**2,314.9**	**282.9**	**Yes**
	• **Restrict westbound left turn + 3rd northbound thru lane**								*11.8*	*B*	*29.5*	*D*	*18.0*	*C*	*11.8*	*29.5*	*18.0*	*No*
14	Tustin Avenue at 7-Eleven	CSS	**38.5**	**E**	14.0	B	13.2	B	**40.1**	**E**	14.5	B	14.0	B	1.6	0.5	0.8	No
	Tustin Avenue at South Project Driveway	CSS							10.7	B	28.9	D	14.8	B	10.7	28.9	14.8	No
	• **Restrict westbound left turn + 3rd northbound thru lane**								*11.7*	*B*	*31.9*	*D*	*17.1*	*C*	*11.7*	*31.9*	*17.1*	*No*
15	Ponderosa Street at Project Driveway	CSS							8.5	A	8.6	A	8.7	A	8.5	8.6	8.7	No
16	Tustin Avenue at Catalina Avenue	CSS	**1641.1**	**F**	**357.9**	**F**	**75.3**	**F**	**3657.6**	**F**	**655.5**	**F**	**193.1**	**F**	**2016.5**	**297.6**	**117.8**	**Yes**
	• **Restrict eastbound and westbound left turn**								***33.6***	***D***	***26.8***	***D***	***15.6***	***D***	*-1607.5*	*-331.1*	*-59.7*	*No*

Notes:
* Intersection Type: TS: Traffic Signal; CSS: Cross-Street Stop; UNC: Uncontrolled
1 Signalized Intersections: Intersection Capacity Utilization (ICU) Analysis Method, Volume to Capacity (V/C) Ration.
Unsignalized Intersections: Highway Capacity Manual (HCM) Analysis Method, Average Delay (seconds per vehicle).
2 Impacts at signalized intersections are considered to be significant when the following changes in the V/C ratios occurs between the "Without Project" and the "With Project" conditions, and operating at LOS E or Worse: LOS: E, F; Change in V/C: > 0.01. Impacts at unsignalized intersections are considered significant when the LOS falls from an LOS D or better, to an LOS E or F.

Source: Michael Baker International, Inc., *Chick-fil-A and In-N-Out at 17th Street and Tustin Avenue in County of Orange Traffic Impact Analysis*, March 6, 2019.

Tustin Avenue at 17th Street (Intersection No. 2) would operate at LOS E during p.m. peak hour conditions for "Existing Plus Project Conditions" without mitigation. There is currently sufficient pavement width to accommodate a third northbound through lane on Tustin Avenue at 17th Street, with no right-of-way acquisition necessary. Implementation of Mitigation Measure 4.17-1 would require re-striping to allow for a third northbound through lane on Tustin Avenue at 17th Street, which would reduce impacts to a less than significant level; refer to Table 4.17-9. Tustin Avenue at Annie's Salon Spa Driveway would operate at a LOS F during p.m. peak hour conditions and Tustin Avenue at North Project Driveway (Intersection No. 13) would operate at a LOS F during a.m., p.m., and MD peak hour conditions for "Existing Plus Project Conditions" without mitigation. It is noted that sufficient right-of-way is available to accommodate the northbound through lane on Tustin Avenue at 17th Street, and no addition right-of-way would be needed. Mitigation Measure 4.17-2 would restrict the eastbound left turn movement on Tustin Avenue at Annie's Salon and Spa via raised median (or similar treatment), which would reduce impacts to a less than significant level when combined with Mitigation Measure 4.17-1. Tustin Avenue at Catalina Avenue would operate at an LOS F in the a.m., p.m., and MD peak hour conditions for "Existing Plus Project Conditions" without mitigation. Mitigation Measure 4.17-3 would restrict the eastbound and westbound left turn movement at Tustin Avenue at Catalina Avenue. As shown on Table 4.17-9, installation of a through lane on Tustin Avenue and 17th Street and the restriction of turn movements at Intersections No. 14 and 16 (Mitigation Measures 4.17-1 through 4.17-3) would reduce these impacts to less than significant levels.

The raised median proposed under Mitigation Measure 4.6-2 would span from Intersection No. 13 to Tustin Avenue at 17th Street (Intersection No. 2). Although the Tustin Avenue at 7-Eleven Driveway intersection (Intersection No. 14) is not significantly impacted by the proposed project, implementation of this recommendation would change Tustin Avenue at 7-Eleven Driveway (Intersection No. 14) operation from full access to a right in/right out only. However, based on the existing traffic, this restriction would not result in a significant impact to Intersection No. 14.

Opening Year 2018 Without Project Conditions Intersection Analysis

Table 4.17-10, *Opening Year 2018 With Project Conditions Intersection Analysis Summary*, summarizes the weekday a.m., weekday p.m., and Saturday MD peak hour intersection operations analysis results for "Opening Year 2018 Without Project Conditions", based on existing geometry. Appendix G of Appendix G includes the "Opening Year 2018 Without Project Conditions" intersection operations analysis worksheets. As shown in Table 4.17-10 all study intersections are projected to operate at LOS D or better, except for the following four intersections:

2. Tustin Avenue at 17th Street – LOS E (p.m.);

13. Tustin Avenue at Annie's Salon & Spa Driveway/the North Project Driveway (future) – LOS F (p.m.);

14. Tustin Avenue at 7-Eleven Driveway/the South Project Driveway (future) – LOS E (a.m.); and

16. Tustin Avenue at Catalina Avenue – LOS F (a.m., p.m., and MD).

Table 4.17-10
Opening Year 2018 With Project Conditions Intersection Analysis Summary

Intersection			Opening Year 2018 Without Project Conditions						Opening Year 2018 With Project Conditions						Significant Project Impact			
			AM		PM		MD		AM		PM		MD		Increase			Project Impact[2]
No.	Name	Type*	V/C[1]	LOS	V/C[1]	LOS	V/C[1]	LOS	V/C[1]	LOS	V/C[1]	LOS	V/C[1]	LOS	AM	PM	MD	
1	Tustin Avenue at Santa Clara Avenue	TS	0.874	D	0.669	B	0.505	A	0.898	D	0.673	B	0.541	A	0.024	0.004	0.036	No
2	Tustin Avenue at 17th Street	TS	0.784	C	**0.954**	**E**	0.589	A	0.786	C	**0.983**	**E**	0.639	B	0.002	**0.029**	0.050	**Yes**
	• **Add 3rd northbound thru lane**								*0.786*	*C*	*0.853*	*D*	*0.608*	*B*	*0.002*	*-0.101*	*0.019*	*No*
3	Tustin Avenue at Tustin Centre	TS	0.608	B	0.595	A	0.309	A	0.610	B	0.597	A	0.313	A	0.002	0.002	0.004	No
4	Sherry Lane/ Cabrillo Park Avenue at 17th Street	TS	0.543	A	0.640	B	0.535	A	0.548	A	0.645	B	0.546	A	0.005	0.005	0.011	No
5	17th Street at Ponderosa Street	CSS	12.9	B	14.1	B	12.4	B	13.5	B	15.3	C	14.0	B	0.6	1.2	1.6	No
	17th Street at Denny's Driveway	CSS	12.3	B	13.3	B	11.1	B	12.4	B	13.4	B	11.3	B	0.1	0.1	0.2	No
6	Deodar Street/SR-55 Southbound On-Ramp at 17th Street	TS	0.631	B	0.597	A	0.635	B	0.637	B	0.604	A	0.650	B	0.006	0.007	0.015	No
	HCM Analysis	*TS*	*17.7*	*B*	*12.4*	*B*	*14.2*	*B*	*17.9*	*B*	*12.6*	*B*	*14.7*	*B*	*0.2*	*0.2*	*0.5*	*No*
7	SR-55 Southbound Off-Ramps at 17th Street	UNC	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	0.0	0.0	No
8	SR-55 Northbound On-Ramps at 17th Street	UNC	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	0.0	0.0	No
9	Mimi's Café Driveway/SR-55 Northbound Off-Ramp at 17th Street	TS	0.523	A	0.728	C	0.594	A	0.527	A	0.894	D	0.606	B	0.004	0.166	0.012	No
	HCM Analysis	*TS*	*20.5*	*C*	*22.6*	*C*	*26.1*	*C*	*20.7*	*C*	*23.2*	*C*	*26.9*	*C*	*0.2*	*0.6*	*0.8*	*No*
10	Carroll Way/Yorba Street at 17th Street	TS	0.547	A	0.675	B	0.591	A	0.551	A	0.691	B	0.599	A	0.004	0.016	0.008	No
11	Yorba Street/Enderle Center Drive at 17th Street	TS	0.598	A	0.650	B	0.531	A	0.599	A	0.663	B	0.535	A	0.001	0.013	0.004	No
12	Yorba Street at Vandenberg Lane	TS	0.361	A	0.284	A	0.190	A	0.363	A	0.287	A	0.193	A	0.002	0.003	0.003	No
13	Tustin Avenue at Salon & Spa Driveway	CSS	31.1	D	**74.8**	**F**	16.8	C	31.7	D	**190.5**	**F**	25.1	D	0.6	**115.7**	8.3	**Yes**
	• **Restrict eastbound left turn**								*32.3*	*D*	*12.6*	*B*	*12.0*	*B*	*1.2*	*-62.2*	*-4.8*	*No*
	Tustin Avenue at the North Project Driveway (future)	CSS							**201.5**	**F**	**2,731.9**	**F**	**369.1**	**F**	**201.5**	**2,731.9**	**369.1**	**Yes**
	• **Restrict westbound left turn + 3rd northbound thru lane**								*12.0*	*B*	*31.4*	*D*	*18.7*	*C*	*12.0*	*31.4*	*18.7*	*No*
14	Tustin Avenue at 7-Eleven	CSS	**41.2**	**E**	14.4	B	13.6	B	**43.0**	**E**	15.0	C	14.4	B	1.8	0.6	0.8	No
	Tustin Avenue at South Project Driveway	CSS							10.8	B	31.0	D	15.3	C	10.8	31.0	15.3	No
	• **Restrict westbound left turn + 3rd northbound thru lane**								*11.9*	*B*	*34.1*	*D*	*17.7*	*C*	*11.9*	*34.1*	*17.7*	*No*
15	Ponderosa Street at Project Driveway	CSS							8.5	A	8.6	A	8.7	A	8.5	8.6	8.7	No
16	Tustin Avenue at Catalina Avenue	CSS	**1641.1**	**F**	**1094.6**	**F**	**147.3**	**F**	**5366.9**	**F**	**2258.1**	**F**	**417.1**	**F**	**2874.8**	**1163.5**	**269.8**	**Yes**
	• **Restrict eastbound and westbound left turn**								*34.3*	*D*	*27.9*	***D***	*15.8*	***D***	*-2457.8*	*-1066.7*	*-131.5*	*No*

Notes:
* Intersection Type: TS: Traffic Signal; CSS: Cross-Street Stop; UNC: Uncontrolled
[1] Signalized Intersections: Intersection Capacity Utilization (ICU) Analysis Method, Volume to Capacity (V/C) Ratio
Unsignalized Intersections: Highway Capacity Manual (HCM) Analysis Method, Average Delay (seconds per vehicle)
[2] Impacts at signalized intersections are considered to be significant when the following changes in the V/C ratios occurs between the "Without Project" and the "With Project" conditions, and operating at LOS E or Worse: LOS: E, F; Change in V/C: > 0.01. Impacts at unsignalized intersections are considered significant when the LOS falls from an LOS D or better, to an LOS E or F.

Source: Michael Baker International, Inc., *Chick-fil-A and In-N-Out at 17th Street and Tustin Avenue in County of Orange Traffic Impact Analysis*, March 6, 2019.

Opening Year 2018 With Project Conditions Intersection Analysis

Table 4.17-10 summarizes the weekday a.m., weekday p.m., and Saturday MD peak hour intersection operations analysis results for "Opening Year 2018 With Project Conditions", based on existing and initial geometry. Appendix H of Appendix G includes the "Opening Year 2018 With Project Conditions" intersection operations analysis worksheets. As shown in Table 4.17-10, all study intersections are projected to operate at LOS D or better, except for the following four intersections:

2. Tustin Avenue at 17th Street – LOS E (p.m.);

13. Tustin Avenue at Annie's Salon & Spa Driveway/the North Project Driveway (future) – LOS F (a.m., p.m., and MD);

14. Tustin Avenue at 7-Eleven Driveway/the South Project Driveway (future) – LOS E (a.m.); and

16. Tustin Avenue at Catalina Avenue – LOS F (a.m., p.m., and MD).

Table 4.17-10, shows that the project would contribute to a significant project impact at three of the four study intersections for "Opening Year 2018 With Project Conditions" based on the impact threshold criteria.

2. Tustin Avenue at 17th Street – LOS E (p.m.); and

13. Tustin Avenue at Annie's Salon & Spa Driveway/the North Project Driveway (future) – LOS F (a.m., p.m., and MD).

16. Tustin Avenue at Catalina Avenue – LOS F (a.m., p.m., and MD).

There is currently sufficient pavement width to accommodate a third northbound through lane on Tustin Avenue at 17th Street, with no right-of-way acquisition necessary. Mitigation Measures 4.17-1 would require re-striping along Tustin Avenue at 17th Street to provide a third northbound through lane (Intersection No. 2). Mitigation Measure 4.17-2 would restrict the eastbound left turn movement via raised median (or similar treatment) on Tustin Avenue at Annie's Salon and Spa. Last, Mitigation Measure 4.17-3 would restrict the eastbound and westbound left turn movement at Tustin Avenue at Catalina Avenue. As shown on Table 4.17-10, Mitigation Measures 4.17-1 through 4.17-3 would reduce Opening Year 2018 With Project impacts to less than significant levels.

The raised median proposed under Mitigation Measure 4.6-2 would span from Intersection No. 13 to Tustin Avenue at 17th Street (Intersection No. 2). Although the Tustin Avenue at 7-Eleven Driveway intersection (Intersection No. 14) is not significantly impacted by the proposed project, implementation of this recommendation would change Tustin Avenue at 7-Eleven Driveway (Intersection No. 14) operation from full access to a right in/right out only. However, based on the existing traffic, this restriction would not result in a significant impact to Intersection No. 14.

Buildout 2035 Without Project Conditions Intersection Analysis

Table 4.17-11, *Buildout 2035 With Project Conditions Intersection Analysis Summary*, summarizes the weekday a.m., weekday p.m., and Saturday MD peak hour intersection operations analysis results for "Buildout 2035 Without Project Conditions", based on existing geometry. Appendix I of Appendix G includes the "Buildout 2035 Without Project Conditions" intersection operations analysis worksheets. As shown in Table 4.17-11, all study area intersections are projected to operate at LOS D or better, except for the following five intersections:

1. Tustin Avenue at Santa Clara Avenue – LOS E (a.m.);

2. Tustin Avenue at 17th Street – LOS E (p.m.);

13. Tustin Avenue at Annie's Salon & Spa Driveway/the North Project Driveway (future) – LOS E (a.m.) and LOS F (p.m.);

14. Tustin Avenue at 7-Eleven Driveway/the South Project Driveway (future) – LOS E (a.m.); and

16. Tustin Avenue at Catalina Avenue – LOS F (a.m., p.m., and MD).

Buildout 2035 With Project Conditions Intersection Analysis

Table 4.17-11 summarizes the weekday a.m., weekday p.m., and Saturday MD peak hour intersection operations analysis results for "Buildout 2035 With Project Conditions", based on existing geometry. Appendix J of Appendix G includes the "Buildout 2035 With Project Conditions" intersection operations analysis worksheets. As shown in Table 4.17-11, all study intersections are projected to operate at LOS D or better, except for the following five intersections:

1. Tustin Avenue at Santa Clara Avenue – LOS E (a.m.);

2. Tustin Avenue at 17th Street – LOS E (p.m.);

13. Tustin Avenue at Annie's Salon & Spa Driveway/the North Project Driveway (future) – LOS F (a.m., p.m., and MD);

14. Tustin Avenue at 7-Eleven Driveway/the South Project Driveway (future) – LOS E (a.m.); and

16. Tustin Avenue at Catalina Avenue – LOS F (a.m., p.m., and MD).

Table 4.17-11 shows that the project would contribute to a significant project impact at following four study intersections for "Buildout 2035 With Project Conditions" based on the impact threshold criteria:

1. Tustin Avenue at Santa Clara Avenue;

2. Tustin Avenue at 17th Street;

Table 4.17-11
Buildout 2035 With Project Conditions Intersection Analysis Summary

Intersection			Opening Year 2018 Without Project Conditions						Opening Year 2018 With Project Conditions						Significant Project Impact			
			AM		PM		MD		AM		PM		MD		Increase			Project Impact[2]
No.	Name	Type*	V/C[1]	LOS	V/C[1]	LOS	V/C[1]	LOS	V/C[1]	LOS	V/C[1]	LOS	V/C[1]	LOS	AM	PM	MD	
1	Tustin Avenue at Santa Clara Avenue	TS	**0.951**	**E**	0.717	C	0.531	A	**0.976**	**E**	0.721	C	0.566	A	**0.025**	0.004	0.035	**Yes**
	• **Tustin Avenue at 17th Street**								**0.949**	**E**	0.721	C	0.509	A	-0.002	0.004	-0.022	No
2	Tustin Avenue at 17th Street	TS	0.837	D	**1.019**	**F**	0.615	B	0.839	D	**1.048**	**F**	0.666	B	0.002	**0.029**	0.051	**Yes**
	• **Add 3rd northbound thru lane**								*0.839*	*D*	*0.909*	*E*	*0.634*	*B*	*0.002*	*-0.110*	*0.019*	*No*
3	Tustin Avenue at Tustin Centre	TS	0.654	B	0.651	B	0.323	A	0.656	B	0.653	B	0.327	A	0.002	0.002	0.004	No
4	Sherry Lane/ Cabrillo Park Avenue at 17th Street	TS	0.560	A	0.678	B	0.566	A	0.567	A	0.684	B	0.577	A	0.007	0.006	0.011	No
5	17th Street at Ponderosa Street	CSS	14.2	B	15.1	C	12.8	B	15.1	C	16.5	C	14.5	B	0.9	1.4	1.7	No
	17th Street at Denny's Driveway	CSS	12.9	B	14.0	B	11.5	B	13.1	B	14.2	B	11.7	B	0.2	0.2	0.2	No
6	Deodar Street/SR-55 Southbound On-Ramp at 17th Street	TS	0.733	C	0.639	B	0.685	B	0.738	C	0.646	B	0.700	B	0.005	0.007	0.015	No
	HCM Analysis	*TS*	*24.1*	*C*	*14.2*	*B*	*16.3*	*B*	*24.4*	*C*	*14.3*	*B*	*16.8*	*B*	*0.3*	*0.1*	*0.5*	*No*
7	SR-55 Southbound Off-Ramps at 17th Street	UNC	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	0.0	0.0	No
8	SR-55 Northbound On-Ramps at 17th Street	UNC	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	0.0	0.0	No
9	Mimi's Café Driveway/SR-55 Northbound Off-Ramp at 17th Street	TS	0.572	A	0.712	C	0.631	B	0.576	A	0.815	D	0.643	B	0.004	0.103	0.012	No
	HCM Analysis	*TS*	*23.4*	*C*	*26.2*	*C*	*28.0*	*C*	*23.8*	*C*	*27.1*	*C*	*29.0*	*C*	*0.4*	*0.9*	*1.0*	*No*
10	Carroll Way/Yorba Street at 17th Street	TS	0.597	A	0.717	C	0.627	B	0.600	B	0.721	C	0.635	B	0.003	0.004	0.008	No
11	Yorba Street/ Enderle Center Drive at 17th Street	TS	0.695	B	0.706	C	0.562	A	0.697	B	0.709	C	0.567	A	0.002	0.003	0.005	No
12	Yorba Street at Vandenberg Lane	TS	0.426	A	0.308	A	0.201	A	0.427	A	0.310	A	0.204	A	0.001	0.002	0.003	No
13	Tustin Avenue at Salon & Spa Driveway	CSS	**36.0**	**E**	**80.8**	**F**	19.4	C	37.2	E	**231.9**	**F**	32.3	D	1.2	**151.1**	**12.9**	**Yes**
	• **Restrict eastbound left turn**								*37.7*	*E*	*13.1*	*B*	*12.2*	*B*	*1.7*	*-67.7*	*-7.2*	*No*
	Tustin Avenue at the North Project Driveway (future)	CSS							**338.0**	**F**	**4,123.3**	**F**	**475.7**	**F**	**338.0**	**4,112.3**	**475.7**	**Yes**
	• **Restrict westbound left turn + 3rd northbound thru lane**								*12.2*	*B*	*34.6*	*D*	*19.5*	*C*	*12.2*	*34.6*	*19.5*	*No*
14	Tustin Avenue at 7-Eleven	CSS	**52.4**	**F**	15.0	C	13.9	B	**55.6**	**F**	15.5	C	14.8	B	3.2	0.5	0.9	No
	Tustin Avenue at South Project Driveway	CSS							11.0	B	**35.5**	**E**	15.8	C	11.0	35.5	15.8	No
	• **Restrict westbound left turn + 3rd northbound thru lane**								*12.1*	*B*	*34.5*	*D*	*18.4*	*C*	*12.1*	*34.5*	*18.4*	*No*
15	Ponderosa Street at Project Driveway	CSS							8.5	A	8.6	A	8.7	A	8.5	8.6	8.7	No
16	Tustin Avenue at Catalina Avenue	CSS	**5551.8**	**F**	**2440.9**	**F**	**156.9**	**F**	**7912.9**	**F**	**5443.2**	**F**	**456.7**	**F**	**2361.1**	**3002.3**	**299.8**	**Yes**
	• **Restrict eastbound and westbound left turn**								*34.8*	*D*	*34.1*	*D*	*17.1*	*C*	*-5517.0*	*-2406.8*	*-139.8*	*No*

Notes:
* Intersection Type: TS: Traffic Signal; CSS: Cross-Street Stop; UNC: Uncontrolled
[1] Signalized Intersections: Intersection Capacity Utilization (ICU) Analysis Method, Volume to Capacity (V/C) Ration
Unsignalized Intersections: Highway Capacity Manual (HCM) Analysis Method, Average Delay (seconds per vehicle)
[2] Impacts at signalized intersections are considered to be significant when the following changes in the V/C ratios occurs between the "Without Project" and the "With Project" conditions, and operating at LOS E or Worse: LOS: E, F; Change in V/C: > 0.01. Impacts at unsignalized intersections are considered significant when the LOS falls from an LOS D or better, to an LOS E or F.

Source: Michael Baker International, Inc., *Chick-fil-A and In-N-Out at 17th Street and Tustin Avenue in County of Orange Traffic Impact Analysis*, March 6, 2019.

13. Tustin Avenue at Annie's Salon & Spa Driveway/the North Project Driveway (future); and

16. Tustin Avenue at Catalina Avenue.

There is currently sufficient pavement width to accommodate a third northbound through lane on Tustin Avenue at 17th Street, with no right-of-way acquisition necessary. Mitigation Measures 4.17-1 would require re-striping along Tustin Avenue at 17th Street to provide a third northbound through lane (Intersection No. 2). Mitigation Measure 4.17-2 would restrict the eastbound left turn movement via raised median (or similar treatment) on Tustin Avenue at Annie's Salon and Spa. Mitigation Measure 4.17-3 would restrict the eastbound and westbound left turn movement at Tustin Avenue at Catalina Avenue. As shown on Table 4.17-11, Mitigation Measures 4.17-1 through 4.17-3 would reduce Buildout 2035 With Project Conditions impacts to less than significant levels.

It should that the raised median proposed under Mitigation Measure 4.6-2 would span from Intersection No. 13 to Tustin Avenue at 17th Street (Intersection No. 2). Although the Tustin Avenue at 7-Eleven Driveway intersection (Intersection No. 14) is not significantly impacted by the proposed project, implementation of this recommendation would change Tustin Avenue at 7-Eleven Driveway (Intersection No. 14) operation from full access to a right in/right out only. However, based on the existing traffic, this restriction would not result in a significant impact to Intersection No. 14.

Further, Mitigation Measure 4.17-4 would require re-striping to allow for a second northbound left turn lane on Tustin Avenue at Santa Clara Avenue (Intersection No. 1) reducing the impact to a less than significant level. As shown on Table 4.17-11, Mitigation Measures 4.17-1 through 4.17-4 would reduce "Buildout 2035 With Project Conditions" impacts to less than significant levels.

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?

Less Than Significant Impact. The cities of Santa Ana and Tustin are subject to the 2015 Orange County CMP. According to the Orange County CMP, there are no Orange County CMP intersections within the study area.[3] The nearest Orange County CMP intersection is located approximately 0.8 mile south of the project site (at East 4th Street and SR-55). Less than 15 percent of inbound/outbound trip generation is anticipated from the northbound SR-55. As such, the proposed project would not result in any significant impacts at this CMP intersection. Less than significant impacts would result in this regard.

[3] Orange County Transportation Authority, *Final 2013 Orange County Congestion Management Program*, dated November 2015.

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?

No Impact. The nearest airport to the project site is the John Wayne Airport, located approximately 5.5 miles to the southwest. Due to the distance of the airport from the project site and the nature of the project, construction and operation of the proposed project would not increase the frequency of air traffic or alter air traffic patterns. Therefore, no impacts would occur in this regard.

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

Less Than Significant Impact With Mitigation Incorporated. The proposed Chick-fil-A drive-thru would include two 12-foot wide drive-thru lanes (that merge to one 12-foot wide lane) located at the western portion of the project site that wraps around three sides of the building, exiting along the eastern portion of the building. The drive-thru would have queue storage of 30 vehicles. The In-N-Out Burger restaurant would have a single drive-thru lane with queue storage of 14 vehicles.

Drive-Thru Lane Queuing Assessment

In-N-Out Queuing

The Traffic Impact Analysis assessed the drive-thru lane queue at the proposed In-N-Out project based on sample surveys collected at the following three sites in Orange County:

- Santa Ana (815 North Bristol Street);
- Costa Mesa (3211 Harbor Boulevard); and
- Orange (2585 North Tustin Street).

The survey sites are selected because they are similar to the surrounding conditions of the proposed project site such that they are located near a freeway and there are some nearby retail developments. The survey sites also have the newer design configuration similar to the proposed project which has larger indoor dining room in comparison to the older design of In-N-Out restaurants that may only have outdoor dining tables. The Santa Ana survey site was specifically requested by the City of Santa Ana where Bristol Street has recently been widened and a dedicated right turn lane was provided for the Santa Ana In-N-Out.

For these three survey locations, drive-thru queue data is collected during the weekday MD period (11:00 a.m. to 1:00 p.m.), the weekday p.m. peak period (4:00 p.m. to 6:00 p.m.) and the Saturday MD period (12:00 p.m. to 2:00 p.m.). The drive-thru vehicular queues were observed and documented in 15-minute intervals within each count period. Table 4.17-12, *Existing Orange County In-N-Out Drive-Thru Lane Queue Observations*, summarizes the observed drive-thru lane queue data collected at the three In-N-Out sites in Orange County. Appendix K of Appendix G includes the drive-thru lane queueing survey data sheets.

Table 4.17-12
Existing Orange County In-N-Out Drive-Thru Lane Queue Observations

Day	Time	Observed[1] Drive-Thru Queue			Average Peak Queue Length	Average Peak Queue Exceeded 14-Vehicle Storage Capacity[5]
		Santa Ana 815 N. Bristol Street[2]	Costa Mesa 3211 Harbor Boulevard[3]	Orange 2585 N. Tustin Street[4]		
Weekday MD	11:00 a.m. – 11:15 a.m.	8	17[2]	10	12	-
	11:15 a.m. – 11:30 a.m.	11	18[2]	9	13	-
	11:30 a.m. – 11:45 a.m.	13	16[2]	12	14	-
	11:45 a.m. – 12:00 p.m.	15[2]	20[2]	13	16	2
	12:00 p.m. – 12:15 p.m.	17[2]	21[2]	12	17	3
	12:15 p.m. – 12:30 p.m.	17[2]	19[2]	15[2]	17	3
	12:30 p.m. – 12:45 p.m.	12	22[2]	14	16	2
	12:45 p.m. – 1:00 p.m.	10	21[2]	15[2]	15	1
	Peak Queue	**17[2]**	**22[2]**	**15[2]**	**18**	**4**
Weekday P.M.	4:00 p.m. – 4:15 p.m.	17[2]	9	8	11	-
	4:15 p.m. – 4:30 p.m.	14	8	9	10	-
	4:30 p.m. – 4:45 p.m.	12	11	13	12	-
	4:45 p.m. – 5:00 p.m.	15[2]	9	12	12	-
	5:00 p.m. – 5:15 p.m.	11	8	15[2]	11	-
	5:15 p.m. – 5:30 p.m.	5	10	10	8	-
	5:30 p.m. – 5:45 p.m.	12	13	9	11	-
	5:45 p.m. – 6:00 p.m.	8	15[2]	8	10	-
	Peak Queue	**17[2]**	**15[2]**	**15[2]**	**16**	**2**
Saturday MD	12:00 p.m. – 12:15 p.m.	12	19[2]	18[2]	15	1
	12:15 p.m. – 12:30 p.m.	15[2]	18[2]	20[2]	18	4
	12:30 p.m. – 12:45 p.m.	17[2]	19[2]	23[2]	20	6
	12:45 p.m. – 1:00 p.m.	17[2]	21[2]	22[2]	20	6
	1:00 p.m. – 1:15 p.m.	16[2]	18[2]	21[2]	18	4
	1:15 p.m. – 1:30 p.m.	17[2]	20[2]	23[2]	20	6
	1:30 p.m. – 1:45 p.m.	17[2]	21[2]	18[2]	19	5
	1:45 p.m. – 2:00 p.m.	17[2]	20[2]	16[2]	18	4
	Peak Queue	**17[2]**	**21[2]**	**23[2]**	**20**	**6**

Notes:
1 See Appendix K of Appendix G for survey data sheets.
2 Drive-thru cue observed Saturday June 4, 2016 and Tuesday June 7, 2016.
3 Drive-thru cue observed Saturday October 22, 2016 and Tuesday October 25, 2016.
4 Drive-thru cue observed Saturday October 22, 2016 and Tuesday October 25, 2016.
5 The peak drive-thru queue is longer than the proposed drive-thru lane which has a minimum storage of 14 vehicles. Additional vehicles may queue on-site along the parking lot access aisles.

Source: Michael Baker International, Inc., *Chick-fil-A and In-N-Out at 17th Street and Tustin Avenue in County of Orange Traffic Impact Analysis*, March 6, 2019.

As shown in Table 4.17-12, the average peak vehicular queue lengths are 18 vehicles for weekdays and 20 vehicles for Saturdays. Based on the project site plan, the proposed In-N-Out project provides a queue storage capacity for approximately 14 vehicles. Based on the average peak drive-thru queue lengths shown in Table 4.17-12, the drive-thru storage capacity is forecast to be exceeded by four and six vehicles during the weekday and Saturday peak periods.

For reference purpose, Table 4.17-13, *Other Comparable In-N-Out Drive-Thru Lane Queue Observations*, shows the historic drive-thru queue survey data at the following eight existing In-N-Out sites in Los Angeles County and Northern California where the weekday p.m. data is readily available:

1. Millbrae (11 Rollins Road, Millbrae, CA);
2. Redwood City (949 Veterans Boulevard, Redwood City, CA);
3. San Carlos (445 Industrial Road, San Carlos, CA);

Table 4.17-13
Other Comparable In-N-Out Drive-Thru Lane Queue Observations

Day	Time	Observed[1] Drive-Thru Queue											Average Queue
		Santa Ana	Costa Mesa	Orange	Millbrae	Redwood City	San Carlos	Rocklin	Vacaville	Fairfield	Long Beach	Los Angeles	
Weekday PM	4:00 p.m. – 4:15 p.m.	17	9	8	13	14	17	5	11	5	6	17	11
	4:15 p.m. – 4:30 p.m.	14	8	9	14	16	16	8	14	8	5	15	12
	4:30 p.m. – 4:45 p.m.	12	11	13	15	16	16	7	16	9	3	12	12
	4:45 p.m. – 5:00 p.m.	15	9	12	14	15	16	6	17	16	6	10	12
	5:00 p.m. – 5:15 p.m.	11	8	15	13	14	16	8	13	17	5	9	12
	5:15 p.m. – 5:30 p.m.	5	10	10	15	14	16	9	11	16	7	14	12
	5:30 p.m. – 5:45 p.m.	12	13	9	16	15	17	11	13	8	7	17	13
	5:45 p.m. – 6:00 p.m.	8	15	8	15	15	17	12	18	17	5	19	14
	Peak Queue	**17**	**15**	**15**	**16**	**16**	**17**	**12**	**18**	**17**	**7**	**19**	**15[2]**

Notes:
[1] See Appendix K of Appendix G for survey data sheets.
[2] The average peak observed drive-thru queue is longer than the proposed drive-thru lane which has a storage of 14 vehicles. Additional vehicles may queue on-site along the parking lot access aisles.

Source: Michael Baker International, Inc., *Chick-fil-A and In-N-Out at 17th Street and Tustin Avenue in County of Orange Traffic Impact Analysis*, March 6, 2019.

4. Rocklin (5490 Crossings Drive, Rocklin, CA);
5. Vacaville (170 Nut Tree Parkway, Vacaville, CA);
6. Fairfield (1364 Holiday Lane, Fairfield, CA);
7. Long Beach (6391 East Pacific Coast Highway, Long Beach, CA); and
8. Los Angeles (9149 South Sepulveda Boulevard, Los Angeles, CA).

As shown in Table 4.17-13, the historic drive-thru queue data from other eight In-N-Out sites are consistent to the three Orange County sites. Please note that only the weekday p.m. data is available for these other eight locations. These other survey sites also have the newer design configuration similar to the proposed project, which has a larger indoor dining room in comparison to the older design of In-N-Out restaurants that may only have outdoor dining tables.

The In-N-Out drive-thru would have a queue storage of 14 vehicles. During the peak periods when the drive-thru lane queue exceeds the 14-vehicle storage capacity, In-N-Out would provide personnel to take food orders at the end of the drive-thru queue to facilitate circulation and minimize the drive-thru queue. The standard operational procedure for In-N-Out is to deploy associates with handheld wireless order tablets as soon as the queue exceeds eight vehicles at the menu board, which would help facilitate efficient movements through the queue and direct traffic as needed. When In-N-Out provides personnel to take customer orders at the drive-through, it minimizes the drive-through queue by expediting customer orders, allowing In-N-Out associates to prepare the food earlier, which results in customers getting their food faster once they reach the drive-through pick-up window. This results in the In-N-Out drive-through queue to dissipate faster. As shown in Appendix L of Appendix G, In-N-Out drive-thru queuing would remain on-site and would not impact Ponderosa Street, 17th Street, or Tustin Avenue. The drive-thru queue length would be monitored by store associates so that the queue length would not exceed 14 vehicles and that the parking lot circulation aisles would remain clear. To reduce impacts related to drive-through queuing, the project incorporates “Right Turn Only” signage at the westbound exit approaches at the northerly project driveway and the southerly project driveway at Tustin Avenue. In-N-Out staff would monitor the drive-thru queue length to ensure that the queue length does not exceed 14 vehicles and that the parking lot circulation and off-site circulation remains clear. If drive-thru demand exceeds the available storage, In-N-Out staff would direct overflow queuing vehicles to park at vacant parking spaces. No spillover onto public right-of-way is anticipated. Therefore, impacts in this regard would be less than significant.

Chick-fil-A Queuing

The Chick-fil-A restaurant would have two drive-thru lanes with a storage for 30 vehicles. The Chick-fil-A drive-thru queue is anticipated to be similar to the In-N-Out queue. Therefore, the proposed storage of 30 vehicles for Chick-fil-A would be adequate. Similar to In-N-Out, Chick-fil-A also deploys associates with handheld wireless order tablets as soon as the queue builds up past the order kiosks. According to Chick-fil-A, their associates are able to fully serve their drive-through customers (from ordering to picking up their food) in an average time of one-minute. If drive-thru demand does exceed the available storage, Chick-fil-A staff would

provide circulation control using traffic cones and signage to direct the queuing to specified areas within the on-site parking lot to avoid disruption of on-site and off-site traffic circulation.

Project Driveway Queuing Analysis

Vehicular queueing analysis is assessed at the two project driveways on Tustin Avenue and the project driveway on Ponderosa Street. The 95th percentile vehicular queue is calculated based on the Highway Capacity Manual (HCM) method using the Synchro analysis software. The queue length is calculated based on a typical car length of 25 feet per vehicle. Table 4.17-14, *Project Driveway Queueing Analysis Summary with a Full Access at the North Project Driveway*, summarizes the project driveway queuing analysis with an initial geometry of a full access at the north project driveway (Intersection No. 13). Appendix M of Appendix G includes the queuing analysis worksheets for the analysis conditions with an initial geometry of a full access at the north project driveway.

As shown in Table 4.17-14, there are adequate storage for the inbound and outbound queuing vehicles, except for the westbound outbound movement at the North Project driveway (Intersection No. 13) where there is high queue length due to the high delay experienced by the westbound left turn traffic.

Mitigation Measure 4.17-2 from the intersection analysis would restrict movement of the westbound left turn lane via raised median (or similar treatment) at the North Project driveway (Intersection No. 13). With implementation of Mitigation Measure 4.17-2, the westbound left turn traffic would redistribute by turning right from the North Project driveway to go northbound on Tustin Avenue, and then making a northbound U-turn on Tustin Avenue at Santa Clara Avenue (Intersection No. 1) to go southbound on Tustin Avenue. Table 4.17-15, *Project Driveway Queueing Analysis Summary with Westbound Left Turn Restriction at the North Project Driveway*, summarize the project driveway queuing analysis with implementation of Mitigation Measure 4.17-2.

As shown in Table 4.17-15, there is no queuing issue at the North Project Driveway with implementation of Mitigation Measure 4.17-2. Appendix N of Appendix G includes the queuing analysis worksheets for the analysis conditions with the recommended westbound left turn restriction at the North Project Driveway.

For the project driveway on Ponderosa Street, a nominal amount of project traffic is anticipated to go north on Ponderosa Street because it is a low-volume residential street and the project would likely attract pedestrian traffic instead of vehicular traffic from adjacent residential neighborhoods north of the project site. Further, the project driveway on Ponderosa Street would restrict left turn movements. Therefore, the westbound left turn and southbound right turn traffic at the Ponderosa Street driveway would be very low which would not adversely impact the traffic circulation on Ponderosa Street. As depicted on Table 4.17-5, the project's maximum queue length would be substantially less than the available storage length available. Impacts would be less than significant in this regard.

Table 4.17-14
Project Driveway Queueing Analysis Summary with a Full Access at the North Project Driveway

Intersection		Available Storage Length	Adequate Storage Length?	Maximum Queue Length[1]	95th Percentile Vehicular Queue								
					Existing Plus			2018 With Project			2035 With Project		
No.	Name				A.M.	P.M.	MD	A.M.	P.M.	MD	A.M.	P.M.	MD
13	Tustin Avenue at North Project Driveway												
	• Northbound Right Turn Lane	100 feet	Yes	0 feet	-	-	-	-	-	-	-	-	-
	• Southbound Left Turn Lane	100 feet	Yes	25 feet	0.1	0.8	0.5	0.1	0.9	0.5	0.1	1.0	0.6
	• **Westbound Left/Right Turn Out**	**60 feet + Parking Aisle[2]**	**No**	**350 feet**	**3.9**	**10.3**	**9.1**	**4.4**	**10.5**	**10.0**	**5.7**	**11.0**	**13.3**
14	Tustin Avenue at South Project Driveway												
	• Northbound Right Turn Lane	100 feet	Yes	0 feet	-	-	-	-	-	-	-	-	-
	• Westbound Right Turn Out	50 feet + Parking Aisle[2]	Yes	50 feet	0.2	1.2	0.8	0.2	1.3	0.9	0.3	1.4	1.1
15	Ponderosa Street at Project Driveway												
	• Northbound Left Turn Lane	n/a	Yes	25 feet	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.2
	• Southbound Right Turn Lane	n/a	Yes	0 feet	-	-	-	-	-	-	-	-	-
	• Eastbound Right Turn Out	50 feet + Parking Aisle[2]	Yes	25 feet	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Notes:
1 Maximum queue length rounded up to vehicle length of 25 feet per vehicle.
2 For exiting traffic, the available storage length includes the length of the throat at the driveway and parking access aisle.

Source: Michael Baker International, Inc., *Chick-fil-A and In-N-Out at 17th Street and Tustin Avenue in County of Orange Traffic Impact Analysis*, March 6, 2019.

Table 4.17-15
Project Driveway Queueing Analysis Summary with
Westbound Left Turn Restriction at the North Project Driveway

Intersection		Available Storage Length	Adequate Storage Length?	Maximum Queue Length[1]	95th Percentile Vehicular Queue								
					Existing Plus			2018 With Project			2035 With Project		
No.	Name				A.M.	P.M.	MD	A.M.	P.M.	MD	A.M.	P.M.	MD
13	Tustin Avenue at North Project Driveway												
	• Northbound Right Turn Lane	100 feet	Yes	0 feet	-	-	-	-	-	-	-	-	-
	• Southbound Left Turn Lane	100 feet	Yes	100 feet	0.2	2.4	1.0	0.2	2.6	1.1	0.3	3.3	1.5
	• Westbound Right Turn Out (Left Turn Restriction)	60 feet + Parking Aisle[2]	Yes	50 feet	0.3	1.4	1.4	0.3	1.5	1.4	0.4	1.7	1.8
14	Tustin Avenue at South Project Driveway												
	• Northbound Right Turn Lane	100 feet	Yes	0 feet	-	-	-	-	-	-	-	-	-
	• Westbound Right Turn Out	50 feet + Parking Aisle[2]	Yes	50 feet	0.3	1.4	1.1	0.3	1.5	1.2	0.3	1.5	1.5
15	Ponderosa Street at Project Driveway												
	• Northbound Left Turn Lane	n/a	Yes	25 feet	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.2
	• Southbound Right Turn Lane	n/a	Yes	0 feet	-	-	-	-	-	-	-	-	-
	• Eastbound Right Turn Out	50 feet + Parking Aisle[2]	Yes	25 feet	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Notes:
1 Maximum queue length rounded up to vehicle length of 25 feet per vehicle.
2 For exiting traffic, the available storage length includes the length of the throat at the driveway and parking access aisle.

Source: Michael Baker International, Inc., *Chick-fil-A and In-N-Out at 17th Street and Tustin Avenue in County of Orange Traffic Impact Analysis*, March 6, 2019.

e. Result in inadequate emergency access?

Less Than Significant Impact With Mitigation Incorporated. Temporary grading activities associated with construction of additional roadway right-of-way and undergrounding of electrical power lines would likely result in partial lane closures along Ponderosa Street, 17th Street, and Tustin Avenue. As indicated in Response 4.9(g), the project would be required to comply with Mitigation Measure 4.9-3, which requires the project applicant to notify the OCFA, OCSD, and Orange County Public Works Department of construction activities that would impede movement (such as road or lane closures) along Ponderosa Street, 17th Street, and Tustin Avenue.

Concerning project operations, development of the proposed project would provide emergency access to persons at the project site via access along Tustin Avenue and Ponderosa Street. All appropriate fire and emergency access conditions would be incorporated into the design of the project. Prior to final site plan approval, the Applicant would be required to submit plans to the Orange County Sheriff's Department (OCSD) and Orange County Fire Authority (OCFA) for review of compliance with applicable regulations. In addition, truck deliveries would be scheduled outside of peak hours of operation to ensure that materials delivery does not substantially restrict traffic flows on roadways and that

emergency access and public safety are maintained during project operations. With implementation of Mitigation Measure 4.9-3 and conformance with existing County standards and regulations, project construction and operation would not result in inadequate emergency access and site access would be sufficient for emergency vehicles. Impacts in this regard would be less than significant with mitigation incorporated.

f. Conflict with adopted policies, plan or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Less Than Significant Impact With Mitigation Incorporated. The project would not conflict with adopted policies, plans, or programs supporting alternative transportation. The project site is served by Orange County transportation Authority (OCTA) Route 71 bus service along North Tustin and Route 60 along East 17th Street. There is currently a northbound bus stop located on Tustin Avenue adjacent to the project site. As part of the project design, the bus stop would be relocated to the far side of the intersection of Tustin Avenue and 17th Street. The relocated bus stop would be constructed consistent with OCTA design guidelines, which are included in Appendix O of Appendix G. Based on the project's site plans, the third through lane is providing a lane width of 29 feet where the new proposed bus stop is located. This allows plenty of space for a bus to pullover for a stop, while also allowing vehicles to continue without being blocked by the bus. Although construction activities could temporarily impact sidewalk circulation for pedestrians and bicyclists, these impacts would be temporary and would cease upon completion. With relocation of the existing bus stop, proposed pedestrian circulation near the project site would be improved. Thus, impacts in this regard would be less than significant.

Standard Conditions of Approval:

Standard Condition T07: Prior to the issuance of any Grading Permits, the Applicant shall provide adequate sight distance per Standard Plan 1117 at all street intersections, in a manner meeting the approval of the Manager, OC Development Services. The Applicant shall make all necessary revisions to the plan to meet the sight distance requirement such as removing slopes or other encroachments from the limited use area in a manner meeting the approval of the Manager, OC Development Services.

Standard Condition T17: Prior to any street construction or relocation, when there are monuments in the project area which control the location of subdivisions, streets or highways, or provide survey control, the developer shall locate and reference the monuments and shall reset them after construction as required by Section 8771 of the Business and Professions Code, in a manner meeting the approval of the Manager, Construction.

Mitigation Measures: Refer to Mitigation Measure 4.9-3. The following additional mitigation measures would be required.

Mitigation Measure 4.17-1: Prior to issuance of a Certificate of Occupancy, the Applicant shall restripe the northbound travel lane of Tustin Avenue, north of 17th Street to the southerly project driveway, in order to accommodate a third northbound through lane. The specific design of the restriping shall be prepared by a licensed professional Traffic Engineer and shall be approved by the Manager, OC Development Services, or their designee.

Mitigation Measure 4.17-2: Prior to issuance of a Certificate of Occupancy, the Applicant shall install appropriate treatments (e.g., a raised median, restriping, or signage) to ensure left turn movements are restricted from the Salon and Spa Driveway onto Tustin Avenue. The treatment design shall be prepared by a licensed professional Traffic Engineer and shall be approved by the City of Santa Ana Public Works Director, or their designee. However, should regulatory approvals not be granted by the City of Santa Ana by the date of Certificate of Occupancy, the Applicant shall provide full monetary funds in an amount calculated by the City of Santa Ana Engineer in a dedicated account with the City of Santa Ana that would specifically earmark this account for the future installation of these specific treatments.

Mitigation Measure 4.17-3: Prior to issuance of a Certificate of Occupancy, the project Applicant shall install appropriate treatments (e.g., appropriate signage) to ensure eastbound and westbound left turn movement at Tustin Avenue at Catalina Avenue are restricted. The treatment design shall be prepared by a licensed professional Traffic Engineer and shall be approved by the Manager, OC Development Services, or their designee.

Mitigation Measure 4.17-4: Prior to issuance of a Certificate of Occupancy, the Applicant shall provide fair-share contribution fees into a dedicated account with the City of Santa Ana for restriping of the intersection of Tustin Avenue at Santa Clara Avenue to accommodate a second northbound left turn lane onto westbound Santa Clara Avenue. Proof of funds to the City of Santa Ana shall be provided to the Manager, OC Development Services.

REFERENCES

City of Santa Ana, *City of Santa Ana General Plan, Circulation Element*, February 2, 1998.

City of Santa Ana, *City of Santa Ana General Plan, Land Use Element*, February 2, 1998.

County of Orange, *County of Orange General Plan, Growth Management Element*, 2012.

County of Orange, *County of Orange General Plan, Transportation Element*, n.d.

County of Orange, *Standard Conditions of Approval Manual*, April 2001.

Google Earth Maps, http://maps.google.com, accessed January 2017.

Michael Baker International, *Chick-fil-A and In-N-Out at 17th Street and Tustin Avenue in County of Orange Traffic Impact Analysis*, dated March 6, 2019.

Orange County Transportation Authority, *2017 Orange County Congestion Management Program*, October 2017.

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4.18 TRIBAL CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. 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			✓	
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.		✓		

As of July 1, 2015, California Assembly Bill 52 (AB 52) was enacted and expanded CEQA by establishing a formal consultation process for California tribes within the CEQA process. The bill specifies that any project may affect or cause a substantial adverse change in the significance of a tribal cultural resource would require a lead agency to "begin consultation with a California Native American tribe that is traditional and culturally affiliated with the geographic area of the proposed project." Section 21074 of AB 52 also defines a new category of resources under CEQA called "tribal cultural resources." Tribal cultural resources are defined as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and is either listed on or eligible for the California Register of Historical Resources or a local historic register, or if the lead agency chooses to treat the resource as a tribal cultural resource.

On February 19, 2016, the California Natural Resources Agency proposed to adopt and amend regulations as part of AB 52 implementing Title 14, Division 6, Chapter 3 of the California Code of Regulations, CEQA Guidelines, to include consideration of impacts to tribal cultural resources pursuant to Government Code Section 11346.6. On September 27, 2016, the California Office of Administrative Law approved the amendments to Appendix G of the CEQA Guidelines, and these amendments are addressed within this environmental document.

It is acknowledged that the County has initiated the tribal consultant process for the purposes of AB 52 for the proposed project on December 15, 2016. Those tribes that have requested to be listed on the County's notification list for the purposes of AB 52 were notified in writing via certified mail. As part of this process, the County has provided notification to each of these listed tribes the opportunity to consult with the County regarding the proposed project. A consultation letter for the project from the Gabrieleno Band of Mission Indians – Kizh Nation, dated January 9, 2017, was received by Orange County Development Services. On February 14, 2017, the Gabrieleno

Band of Mission Indians – Kizh Nation through written correspondence formally declined consultation. Neither the Juaneno Band of Mission Indians nor the Soboba Band of Luiseno Indians requested consultation.

a. 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

Less Than Significant Impact. Refer to Response 4.5(a).

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.

Less Than Significant Impact With Mitigation Incorporated. The project would require grading, excavation, and the construction of two drive-thru restaurants. According to the *Cultural Resources Records Search* (Cultural Memorandum) prepared for the proposed project by Rincon Consultants, Inc. (Rincon) (dated February 2, 2017) (provided in Appendix B, *Cultural Resources Memorandum*), a search of the Sacred Lands File (SLF) maintained by the Native American Heritage Commission (NAHC) indicated no records are available for the project site. As noted above, the County of Orange distributed letters to potentially affected Native American tribes (as applicable) for consultation regarding the proposed project in accordance with AB 52. The County received one tribal response and coordination and consultation between the tribes and the County would continue as required under AB 52. The site is generally underlain by artificial fill soils extending to depths of four feet below ground surface (bgs) and excavation would extend to a depth of 11 feet bgs. Thus, grading activities associated with construction of the proposed project could encounter native soils that may include unknown tribal cultural resources. Mitigation Measure 4.18-1 has been included in the unlikely event that such resources are discovered during the grading and excavation process. Upon implementation of the recommended Mitigation Measure 4.18-1, potential impacts to tribal cultural resources would be reduced to less than significant levels.

Mitigation Measures:

Mitigation Measure 4.18-1: If evidence of subsurface tribal cultural resources is found during construction, excavation, and/or other construction activities in that area, construction activities shall cease and the construction contractor shall contact the Manager, OC Development Services/Planning. With direction from the Manager, an archaeologist certified by the County of Orange shall be retained to evaluate the discovery prior to resuming grading in the immediate vicinity of the find. If warranted (as determined by the Manager, OC Development Services/Planning in consultation with the archaeologist), the archaeologist shall contact the Native American Heritage Commission to determine the appropriate Native American monitor for the find. The archaeologist and Native American Monitor shall collect the resource and prepare a technical report describing the results of the investigation. The test-level report shall evaluate the site including discussion of significance (depth, nature, condition, and extent of the resources), final mitigation recommendations, and cost estimates.

REFERENCES

California State Parks Office of Historic Preservation, *California Historic Resources*, Orange County, http://ohp.parks.ca.gov/ListedResources/?view=county&criteria=30, accessed January 4, 2017.

Krazan & Associates, Inc., *Geotechnical Engineering Investigation Proposed In-N-Out Center NEC of Tustin Avenue and 17th Street, Santa Ana, California*, dated May 13, 2013.

National Park Service, *National Register of Historic Places Program*, http://www.nps.gov/nr/research/, accessed January 4, 2017.

Rincon Consultants, Inc., *Cultural Resources Records Search*, dated February 2, 2017.

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4.19 UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 telecommunication facilities, the construction or relocation of which could cause significant environmental impacts?			✓	
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 services 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?			✓	

Utilities correspondence conducted for the proposed project that supplements this analysis is provided in Appendix H, *Utilities Correspondence*.

a. Require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunication facilities or expansion of existing facilities, the construction or relocation of which could cause significant environmental impacts?

Less Than Significant Impact.

Water

The project site is located in unincorporated Orange County with historical commercial uses that were previously connected to the surrounding infrastructure. The project would require an "Out of Service Area" Agreement with the City of Tustin for use of an existing water line and meter located on Ponderosa Street; however, these facilities would be managed by the City of Santa Ana following approval of the project's Cooperative Agreement. The project proposes to connect to the existing water meter with a two-inch water line. As a result, the project would result only in the construction of new water connections, the construction of which would not cause significant environmental effects.

Payment of standard water connection fees would ensure that sufficient water supplies is available. Additionally, the City of Tustin provided a "Will Serve" letter for water use of this line by the project; refer to Appendix H. In addition, as part of the Reorganization, the City of Santa Ana would enter into an agreement with the City of Tustin to provide potable water to the site. Thus, it is not anticipated that project implementation would require construction of

new or the expansion of existing water facilities. Less than significant impacts would occur in this regard.

Wastewater Treatment

The project proposes to construct a new sewer main within Ponderosa Street and connecting to the existing sewer system (a six-inch sewer main) located southeast of the project site within 17th Street for conveyance to the Orange County Sanitation District (County Sanitation Districts Reclamation Plant). The new sewer line would also be capable of future extension to serve other residential properties within the larger reorganization area that currently have no municipal sewer service. According to the Santa Ana General Plan, Land Use Element, the existing sewage is diverted to Reclamation Plant Number 1 in Fountain Valley. As a result, the project would result in the construction of new wastewater treatment facilities, the construction of which could cause significant environmental effects.

Payment of standard sewer connection fees would ensure that sufficient capacity is available. Additionally, the City of Santa Ana provided a "Will Serve" letter for the use of existing 8-inch sewer main in 17th Street by the project, contingent of the City of Santa Ana's review and approval of the project's public sewer improvement plans. Final approval of plans and permit issuance would not be issued until the annexation is completed or the City of Santa Ana, LAFCO, and the property owner execute an "Out of Service Area" agreement; refer to Appendix H. Therefore, it is not anticipated that project implementation would require construction of new or the expansion of existing wastewater treatment facilities. Less than significant impacts would occur in this regard.

Stormwater Drainage

The project proposes the construction of two on-site underground infiltration basins that would collect onsite runoff. The infiltration basins would be connected to the existing storm drain located in the intersection of 17th Street and Tustin Avenue for overflow purposes. Due to the construction of the infiltration system, project implementation would not require construction of new stormwater drainage facilities or expansion of existing facilities. Less than significant impacts would occur in this regard.

Dry Utilities

Electricity, natural gas, and telecommunication facilities at the project site would be provided by Southern California Edison, Southern California Gas, and Charter Communications/Spectrum, respectively. As a result, the project would result in the construction of new dry utilities, the construction of which could cause significant environmental effects. The project's potential environmental effects for construction are analyzed throughout this Initial Study. Construction of the project's dry utilities would occur within a highly developed area and the project site has been completely disturbed as a result of historical on-site commercial uses, regular disking, and current on-site remediation activities. As a result, no environmental impacts are expected to occur following compliance with the relevant laws, ordinances, and regulations, as well as the specified mitigation measures included in this Initial Study, would ensure the project's construction-related environmental impacts are reduced to less than significant levels.

b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less Than Significant Impact. As stated in Response 4.19(a), the City of Tustin provided a "Will Serve" letter for water use at the project site. Thus, the City of Tustin has a sufficient water supply available to serve the project. Impacts in this regard would be less than significant.

c. Result in a determination by the wastewater treatment provider which services 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?

Less Than Significant Impact. Refer to Response 4.19(a), the proposed project would result in the generation of additional wastewater, as compared to existing conditions. However, the County Sanitation District serves the project area and must comply with the wastewater treatment regulations and requirements of the Santa Ana Regional Water Quality Control Board (RWQCB). Due to mandatory compliance with the Regional Board requirements, the Santa Ana RWQCB wastewater treatment requirements are not anticipated to be exceeded. As part of any new development project, County Sanitation District would charge a standard sewer connection fee, which would ensure that sufficient capacity is available and that the wastewater treatment requirements of the Santa Ana RWQCB are met.

Payment of standard sewer connection fees to the City of Santa Ana would ensure that sufficient capacity is available. Therefore, the project's wastewater demand, in addition to the County Sanitation District's existing commitments, would not exceed capacity. A less than significant impact would occur in this regard.

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. It is anticipated that waste generated by construction and operation of the proposed project would be serviced by Waste Management of Orange County or CR&R Recycling Services. Waste Management transports waste to the Orange Transfer Station in Orange and the Sunset Environmental Station in Irvine and then to the landfill. Table 4.19-1, *Local Landfills*, includes a list of local landfills.

Table 4.19-1
Local Landfills

Name/Location	Daily Permitted Capacity (tons per day [tpd])	Maximum Permitted Capacity	Remaining Capacity	Percent Remaining Capacity
El Sobrante Landfill, Corona	16,054 tpd	184,930,000 tons	143,977,170 tons	77.9%
Frank R. Bowerman Landfill, Trabuco Canyon	11,500 tpd	266,000,000 c.y.	205,000,000 c.y.	77.1%
Olinda Alpha Landfill, Brea	8,000 tpd	148,800,000 c.y.	34,200,000 c.y.	23.0%
Prima Deshecha Landfill, San Juan Capistrano	4,000 tpd	172,900,000 c.y.	87,384,799 c.y.	50.5%

c.y. = cubic yards
Sources:
CalRecycle, *Facility/Site Summary Details: El Sobrante Landfill (33-AA-0217)*, https://www2.calrecycle.ca.gov/swfacilities/Directory/33-AA-0217/, accessed March 7, 2019.
CalRecycle, *Facility/Site Summary Details: Frank R. Bowerman Sanitary Landfill (30-AB-0360)*, https://www2.calrecycle.ca.gov/swfacilities/Directory/30-AB-0360/, accessed March 7, 2019.
CalRecycle, *Facility/Site Summary Details: Olinda Alpha Sanitary Landfill (30-AB-0035)*, https://www2.calrecycle.ca.gov/swfacilities/Directory/30-AB-0035/, accessed March 7, 2019.
CalRecycle, *Facility/Site Summary Details: Prima Deshecha Sanitary Landfill (30-AB-0019)*, https://www2.calrecycle.ca.gov/swfacilities/Directory/30-AB-0019/, accessed March 8, 2019.

Development of the proposed project would only nominally contribute to the daily tons of solid waste disposal. Based on the project's Air Quality and Greenhouse Gas modeling, project operations are expected to generate approximate 113.35 tons of waste per year, or approximately 0.31 tons per day (tpd); refer to Appendix A, *Air Quality/Greenhouse Gas Data*. This represents less than one percent of the total daily permitted throughput capacities identified in Table 4.19-1. As such, the project is not anticipated to 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. Impacts in this regard would be less than significant.

e. Comply with federal, state and local management and reduction statutes and regulations related to solid waste?

Less Than Significant Impact. The project would be required to comply with management and reduction laws and regulations governing solid waste disposal. Specifically, the project would be subject to California Integrated Waste Management Act of 1989 (AB 939), which requires all California cities to "reduce, recycle, and re-use solid waste generated in the state to the maximum extent feasible." The California Integrated Waste Management Act of 1989 requires that at least 50 percent of waste produced is recycled, reduced, or composted. As discussed in Response 4.19(d), waste disposal would be serviced by Waste Management of Orange County. Through the County's OC Waste & Recycling program, the County offers a Construction and Demolition Recycling and Reuse Program and application, recycling and waste prevention tips, and 30 recycling facilities including construction and demolition debris facilities, steel recyclers, greenwaste processors, transfer stations, and facilities for other materials. According to the Santa Ana General Plan, the City of Santa Ana provides the following recycling programs: residential curbside recycling, multiple-family recycling, construction and demolition recycling, composting, and annual household hazardous waste collections. The City of Santa Ana has adopted a Source Reduction and Recycling Element (SRRE) in 1992 which outlines the City's commitment to a 25 percent solid waste reduction by 1995 and a 50 percent reduction by 2000. The plan calls for recycling, composting, special

waste disposal, and education and public information programs. Therefore, impacts related to solid waste are expected to be less than significant.

REFERENCES

CalRecycle, Facility/Site Summary Details: El Sobrante Landfill (33-AA-0217), https://www2.calrecycle.ca.gov/swfacilities/Directory/33-AA-0217/, accessed March 7, 2019.

CalRecycle, Facility/Site Summary Details: Frank R. Bowerman Sanitary Landfill (30-AB-0360), https://www2.calrecycle.ca.gov/swfacilities/Directory/30-AB-0360/, accessed March 7, 2019.

CalRecycle, Facility/Site Summary Details: Olinda Alpha Sanitary Landfill (30-AB-0035), https://www2.calrecycle.ca.gov/swfacilities/Directory/30-AB-0035/, accessed March 7, 2019.

CalRecycle, Facility/Site Summary Details: Prima Deshecha Sanitary Landfill (30-AB-0019), https://www2.calrecycle.ca.gov/swfacilities/Directory/30-AB-0019/, accessed March 8, 2019.

Carollo, *Orange County Sanitation District, California, Upgrades to Plant Nos. 1 and 2*, http://www.carollo.com/projects/ocsd-upgrades-to-plant-nos-1-and-2, accessed November 28, 2016.

City of Santa Ana, *City of Santa Ana General Plan*, adopted January 2010.

County of Orange, *Codified Ordinances of the County of Orange,* codified through Ordinance No. 16-002, enacted March 15, 2016. (Supplement No. 130).

County of Orange, *County of Orange General Plan,* July 2014.

County of Orange, *Standard Conditions of Approval Manual,* April 2001.

Google Earth Maps, http://maps.google.com, accessed January 2017.

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4.20 WILDFIRE

If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, would the project::	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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??				✓

a. Substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. According to the California Department of Forestry and Fire (CAL FIRE), *Orange County Very High Fire Hazard Severity Zones in SRA Map*, the project site is not located in or near a State responsibility area nor is the project site designated as a very high fire severity zone.[1] As indicated in Response 4.9(g), the project site and surrounding land uses are developed with urban land uses, and do not present a wildland fire hazard. Therefore, no impact would occur in this regard.

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?

No Impact. Refer to Response 4.20(a)

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?

No Impact. Refer to Response 4.20(a).

[1] California Department of Forestry and Fire Protection, *Orange County Fire Hazard Severity Zones in SRA*, November 7, 2007, http://frap.fire.ca.gov/webdata/maps/orange/fhszs_map.30.jpg, accessed February 20, 2019.

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?

No Impact. Refer to Response 4.20(a).

REFERENCES

California Department of Forestry and Fire Protection, *Orange County Fire Hazard Severity Zones in SRA*, November 7, 2007, http://frap.fire.ca.gov/webdata/maps/orange/fhszs_map.30.jpg, accessed February 20, 2019.

4.21 MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of 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 an individual 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?		✓		

a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of 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?

Less Than Significant Impact With Mitigation Incorporated. The project site is within a developed urban area, and there are no rare, endangered, or threatened plants and animal species within the project site. As noted within Section 4.5, *Cultural Resources*, the site exists within a highly developed area and the project site has been completely disturbed as a result of historical on-site commercial uses and current on-site remediation. No known cultural resources exist within the boundaries of the site. Although not anticipated to be encountered, grading activities associated with construction of the proposed project could encounter unknown resources in native soils. The project would be required to comply with Standard Condition A04, which would ensure that an archaeologist observe grading activities, salvage and catalogue archaeological resources as necessary, and establish procedures for archaeological resource surveillance, as well as procedures for temporarily halting or redirecting work. In addition, Standard Condition A07 would ensure that a paleontologist observe grading activities, salvage and catalogue fossils as necessary, and establish procedures for paleontological resource surveillance, as well as procedures for temporarily halting or redirecting work. Therefore, with compliance with Standard Conditions A04 and A07, impacts involving unknown potential archaeological and/or paleontological resources would be reduced to less than significant levels. Also, Mitigation Measure 4.18-1 would ensure that potential impacts to unknown Tribal Cultural Resources are reduced to less than significant levels. Further, Mitigation Measure 4.5-1 has been provided in the unlikely event that unknown human remains are encountered during construction. Upon implementation of

the Standard Conditions of Approval and recommended mitigation measures, cultural resource impacts would be reduced to less than significant levels.

b. Does the project have impacts that are individually limited, but cumulatively considerable? ("cumulatively considerable" means that the incremental effects of an individual 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.)

Less Than Significant Impact With Mitigation Incorporated. Cumulative impacts can occur as a result of the interactions of environmental changes from multiple projects that affect the same resources, transportation network, watershed, air basin, noise environment, or other environmental conditions. Such impacts could be short-term and temporary from overlapping construction impacts, or long term due to permanent land use changes.

Table 4.21-1, *Cumulative Projects*, provides a summary of related projects in the vicinity of the project site, which is used in the cumulative impact analysis.

Table 4.21-1
Cumulative Projects

Address/Applicant	Land Use[1]
City of Tustin	
2222 E 1st Street / East First Street Apartments	443 DU senior housing
City of Santa Ana	
1440 E 1st Street / AMCAL First Street Family Apartments	69 DU apartments
628 E Washington Avenue / Certified Transportation	7,165 SF bus terminal maintenance building
923 N Santiago / Depot at Santiago	70 DU apartments; 9,000 SF retail/office
2151 E 1st Street / First Street Care Home	72 DU supportive housing
1975 E 17th Street / Homeplace Center Expansion	9,500 SF commercial
627 E Washington Avenue / Lotus Townhomes	8 DU townhomes
1907 E 1st Street / Lyon Communities	2,424 SF commercial; 254 DU apartments
1666 N Main Street / Meta Housing Adaptive Reuse	58 DU apartments
555 E Memory Lane / Park View at Town & Country Manor	174 DU apartments
1703 E 17th Street / Rocket Express Car Wash	4,995 SF car wash
1584 E Santa Clara Avenue / Sexlinger Homes & Orchard	24 DU single-family homes
301 E Jeanette Lane / The 301	182 DU multi-family residential
200 N Cabrillo Park Drive / The Madison Mixed-Use	213 DU apartments; 4 DU live/work; 6,325 SF commercial
818 E 3rd Street / The Salvation Army	18,772 SF emergency shelter
1008 E 4th Street / Tom's Truck Residential Development	170 DU single-family homes
930 N Grand Avenue / Train Station Live-Work	5 DU live/work

1 SF = square feet; DU = dwelling unit

The analysis provided in Section 4.2, *Agriculture and Forestry Resources*, and Section 4.12, *Mineral Resources*, found that no individual impacts would occur; therefore, the project could not contribute considerably to agricultural or mineral resources impacts. The analyses provided in this IS/MND with regard to agricultural and forestry resources, biological resources, greenhouse gas emissions, land use and planning, mineral resources, population and housing, and utilities and service systems found that impacts would be less than significant. Therefore, while the project would contribute to cumulative impacts, the project contribution would not be considerable.

Impacts related to air quality construction emissions, cultural resources, hazards and hazardous materials, long-term water quality, noise, operational transportation/traffic, and tribal cultural resources impacts were found to be potentially significant and require Standard Conditions and further mitigation to reduce to less than significant levels; therefore, the project could contribute considerably to significant cumulative impacts in these topical areas. These topics are discussed in further detail below.

Air Quality

The context for assessing cumulative air impacts from short-term construction activities includes quantifying emissions and comparing the emissions to the applicable SCAQMD screening thresholds. As discussed in Section 4.3, *Air Quality*, the project's construction emissions would be below SCAQMD thresholds. Further, the project would be required to implement dust suppression techniques to prevent fugitive dust from creating a nuisance off-site (see Mitigation Measure 4.3-1). As such, short-term construction air emissions would remain less than significant, and the proposed project would not result in a cumulatively considerable contribution to impacts related to short-term air quality emissions.

Cultural Resources

The context for assessing cumulative impacts to local archeological and paleontological resources is to determine whether the project would result in a loss of these resources that could diminish or eliminate important information relevant to the County of Orange and/or the surrounding area. As discussed in Section 4.5, *Cultural Resources*, the project would be required to comply with Standard Conditions A04 and A07, which require an archaeologist/paleontologist to evaluate any discovered potential archaeological/ paleontological resources, and appropriate steps to preserve or curate the artifact and halt or redirect work. This would eliminate any potential loss of important archaeological or paleontological information that may be buried under the project site. With regard to a potential discovery of human remains during construction, the project would be required to comply with Mitigation Measure 4.5-1, which requires grading and construction activities to cease pursuant to State Health and Safety Code Section 7050.5 until the County Coroner has made the necessary findings as to origin and disposition pursuant to Section 5097.98 of the California Public Resources Code. Therefore, the project would not result in a cumulatively considerable contribution to impacts related to a cumulative loss of important archaeological or paleontological resources, and/or disturbed human remains.

Hazards and Hazardous Materials

As the project site is currently undergoing remedial activities, the project would be required to comply with Mitigation Measures 4.9-1 and 4.9-2 (requiring remedial verification soil and soil gas sampling prior to construction). Compliance with Mitigation Measures 4.9-1 and 4.9-2 would reduce the project's impacts related to hazardous materials to a less than significant impact, and therefore would not be cumulatively considerable.

Mitigation Measure 4.9-3 would require the project contractor to notify the Orange County Sheriff's Department (OCSD), Orange County Fire Authority (OCFA), and Orange County Public Works Director of construction activities that would impede movement along any local roadways. Cumulative projects would be responsible for coordination with the OCSD, OCFA, and Orange County Public Works director in the event of a road or lane closure in the

surrounding area. Therefore, the project would not result in a cumulatively considerable contribution to impacts related to interfering with an adopted emergency response plan or emergency evacuation plan and impacts would be less than significant.

Hydrology and Water Quality

As discussed in Section 4.10, *Hydrology and Water Quality*, the project would be required to implement NPDES and Municipal Code regulations, as well as Standard Conditions D01b, D02b, D03a, D04a, D09a, WQ01, WQ03, WQ04, and WQ05, as well as Mitigation Measure 4.10-1 to ensure that impacts related to long-term water quality would be less than significant. Cumulative projects would be required to comply with all City/County and NPDES regulations related to long-term water quality, which would ensure that the local water quality is not significantly impacted by development. As such, the project would not contribute to a cumulatively considerable impact with regard to hydrology and water quality.

Noise

As discussed in Section 4.13, *Noise*, the project would result in a temporary increase in noise levels during construction activities; however, Standard Condition N10 would be incorporated to minimize construction-related noise and therefore the project's short-term noise contribution would not be considerable. The project's long-term operational mobile and stationary noise impacts were determined to be less than significant with implementation of Standard Conditions N02 and N08. Cumulative projects would be required to comply with the applicable noise standards, regulations, and mitigation measures on a project-by-project basis. Therefore, project-related noise would not be significantly cumulatively considerable with regard to the noise environment.

Transportation/Traffic

As discussed in Section 4.17, *Transportation/Traffic*, the project would increase traffic in the area. The project's long-term traffic impacts were determined to be less than significant with implementation of Standard Conditions T07 and T17, and Mitigation Measures 4.17-1 through 4.17-4. Cumulative projects would be required to comply with the applicable traffic design standards, regulations, and mitigation measures on a project-by-project basis to ensure significant cumulative traffic impacts do not occur. Therefore, project-related traffic impacts would not be significantly cumulatively considerable with regard to transportation/traffic.

Tribal Cultural Resources

As discussed in Section 4.18, *Tribal Cultural Resources*, the project would be required to comply with Mitigation Measure 4.18-1, which requires halting construction activities and proper consultation with the County of Orange and Native American Heritage Commission if subsurface tribal cultural resources are found during construction, excavation, and/or other construction activities in the area. This would eliminate any potential loss of important tribal cultural resources that may be discovered at the project site. Compliance with Mitigation Measure 4.18-1 would ensure that a cumulative loss of tribal cultural resources as a result of the project would not occur. Cumulative projects in the area would be required to comply with the provisions of AB 52, which would reduce cumulative impacts with regard to tribal cultural resources. Therefore, the project would not result in a cumulatively considerable contribution to impacts related to tribal cultural resources, and impacts would be less than significant.

Based on the above analysis concerning the project's cumulative impacts in consideration of past, current, and future projects, a less than significant impact would occur in this regard with implementation of applicable Standard Conditions and Mitigation Measures.

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

Less Than Significant Impact With Mitigation Incorporated. Previous sections of this Initial Study reviewed the proposed project's potential impacts related to aesthetics, air pollution, noise, greenhouse gas emissions, and other issues. Standard Conditions of Approval and recommended mitigation measures have been incorporated into the project that would reduce the potential adverse impacts on human beings to a less than significant level. Therefore, with implementation of the Standard Conditions of Approval and recommended mitigation measures, the proposed project would not result in environmental impacts that would cause substantial adverse effects on human beings.

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5.0 INVENTORY OF STANDARD CONDITIONS AND MITIGATION MEASURES

5.1 INVENTORY OF STANDARD CONDITIONS OF APPROVAL

AESTHETICS

Standard Condition LG01: Prior to issuance of any Building Permit, the Applicant shall demonstrate that all exterior lighting has been designed and located so that all direct rays are confined to the property in a manner meeting the approval of the Manager, OC Development Services/Planning.

AIR QUALITY

Condition of Approval 4.3-1: Prior to issuance of any Grading Permit, the Manager, OC Development Services shall confirm that the project stipulates that, in compliance with SCAQMD Rule 402 and Rule 403, excessive fugitive dust emissions shall be controlled by regular watering or other dust prevention measures, as specified in the SCAQMD's Rules and Regulations. In addition, SCAQMD Rule 402 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off-site that are applicable to the project. Implementation of the following measures would reduce short-term fugitive dust impacts on nearby sensitive receptors:

- All active portions of the construction site shall be watered every three hours during daily construction activities and when dust is observed migrating from the project site to prevent excessive amounts of dust;
- Pave or apply water every three hours during daily construction activities or apply non-toxic soil stabilizers on all unpaved access roads, parking areas, and staging areas. More frequent watering shall occur if dust is observed migrating from the site during site disturbance;
- Any on-site stockpiles of debris, dirt, or other dusty material shall be enclosed, covered, or watered twice daily, or non-toxic soil binders shall be applied;
- All grading and excavation operations shall be suspended when wind speeds exceed 25 miles per hour;
- Disturbed areas shall be replaced with ground cover or paved immediately after construction is completed in the affected area;
- Gravel bed trackout aprons (3 inches deep, 25 feet long, 12 feet wide per lane and edged by rock berm or row of stakes) shall be installed to reduce mud/dirt trackout from unpaved truck exit routes;
- On-site vehicle speed shall be limited to 15 miles per hour;

- Visible dust beyond the property line which emanates from the project shall be prevented to the maximum extent feasible;
- All material transported off-site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust prior to departing the job site;
- Reroute construction trucks away from congested streets or sensitive receptor areas;
- Track-out devices shall be used at all construction site access points; and
- All delivery truck tires shall be watered down and/or scraped down prior to departing the job site.

CULTURAL RESOURCES

Standard Condition A04: Prior to the issuance of any Grading Permit, the Applicant shall provide written evidence to the Manager, OC Development Services, that Applicant has retained a County-certified archaeologist, to observe grading activities and salvage and catalogue archaeological resources as necessary. The archaeologist shall be present at the pre-grade conference, shall establish procedures for archaeological resource surveillance, and shall establish, in cooperation with the Applicant, procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the artifacts as appropriate. If the archaeological resources are found to be significant, the archaeological observer shall determine appropriate actions, in cooperation with the project Applicant, for exploration and/or salvage.

Prior to the release of the grading bond the Applicant shall obtain approval of the archaeologist's follow-up report from the Manager, Harbors, Beaches and Parks (HBP)/Coastal and Historical Facilities. The report shall include the period of inspection, an analysis of any artifacts found and the present repository of the artifacts. Applicant shall prepare excavated material to the point of identification. Applicant shall offer excavated finds for curatorial purposes to the County of Orange, or its designee, on a first refusal basis. These actions, as well as final mitigation and disposition of the resources, shall be subject to the approval of the Manager, HBP/Coastal and Historical Facilities. Applicant shall pay curatorial fees if an applicable fee program has been adopted by the Board of Supervisors, and such fee program is in effect at the time of presentation of the materials to the County of Orange or its designee, all in a manner meeting the approval of the Manager, HBP/Coastal and Historical Facilities.

GEOLOGY AND SOILS

Standard Condition G01: Prior to the issuance of a Grading Permit, the Applicant shall submit a geotechnical report to the Manager, OC Development Services, for approval. The report shall include the information and be in the form as required by the Grading Manual.

Standard Condition A07: Prior to the issuance of any Grading Permit, the project Applicant shall provide written evidence to the Manager, OC Development Services, that Applicant has retained a County certified paleontologist to observe grading activities and salvage and catalogue fossils as necessary. The paleontologist shall be present at the pre-grade conference, shall establish procedures for paleontological resource surveillance, and shall establish, in cooperation with the Applicant, procedures for temporarily halting or redirecting work to permit sampling, identification,

and evaluation of the fossils. If the paleontological resources are found to be significant, the paleontologist shall determine appropriate actions, in cooperation with the Applicant, which ensure proper exploration and/or salvage.

Prior to the release of the grading bond the Applicant shall submit the paleontologist's follow up report for approval by the Manager, Harbors, Beaches and Parks (HBP)/Coastal and Historical Facilities. The report shall include the period of inspection, a catalogue and analysis of the fossils found, and the present repository of the fossils. Applicant shall prepare excavated material to the point of identification. The Applicant shall offer excavated finds for curatorial purposes to the County of Orange, or its designee, on a first refusal basis. These actions, as well as final mitigation and disposition of the resources, shall be subject to approval by the HBP/Coastal and Historical Facilities. Applicant shall pay curatorial fees if an applicable fee program has been adopted by the Board of Supervisors, and such fee program is in effect at the time of presentation of the materials to the County of Orange or its designee, all in a manner meeting the approval of the Manager, HBP/Coastal and Historical Facilities.

HYDROLOGY AND WATER QUALITY

Standard Condition D01b: Prior to the issuance of any Grading Permits, the following drainage studies shall be submitted to and approved by the Manager, OC Development Services:

A. A drainage study of the project including diversions, off-site areas that drain onto and/or through the project, and justification of any diversions; and

B. When applicable, a drainage study evidencing that proposed drainage patterns will not overload existing storm drains; and

C. Detailed drainage studies indicating how the project grading, in conjunction with the drainage conveyance systems including applicable swales, channels, street flows, catch basins, storm drains, and flood water retarding, will allow building pads to be safe from inundation from rainfall runoff which may be expected from all storms up to and including the theoretical 100-year flood.

Standard Condition D02b: Prior to the issuance of any Grading Permits, the Applicant shall in a manner meeting the approval of the Manager, OC Development Services:

1. Design provisions for surface drainage; and

2. Design all necessary storm drain facilities extending to a satisfactory point of disposal for the proper control and disposal of storm runoff; and

3. Dedicate the associated easements to the County of Orange, if determined necessary.

Prior to the issuance of any Certificates of Use and Occupancy, said improvements shall be constructed in a manner meeting the approval of the Manager, Construction.

Standard Condition D03a: Prior to the issuance of any Grading Permit, and if determined necessary by the Manager, OC Development Services, the Applicant shall record a letter of consent, from the upstream and/or downstream property owners permitting drainage diversions

and/or unnatural concentrations. The form of the letter of consent shall be approved by the Manager, OC Development Services prior to recordation of the letter.

Standard Condition D04a: Prior to the issuance of any Building Permits, the Applicant shall participate in the applicable Master Plan of Drainage in a manner meeting the approval of the Manager, OC Development Services, including payment of fees and the construction of the necessary facilities.

Standard Condition D09a: Prior to the issuance of any Grading Permits, Applicant shall delineate on the grading plan the floodplain which affects the property, in a manner meeting the approval of the Manager, OC Development Services.

Standard Condition WQ01: Prior to the recordation of any Final Subdivision Map (except those maps for financing or conveyance purposes only) or the issuance of any Grading or Building Permit (whichever comes first), the Applicant shall submit for review and approval by the Manager, Inspection Services Division, a Water Quality Management Plan (WQMP) specifically identifying Best Management Practices (BMPs) that will be used on-site to control predictable pollutant runoff. This WQMP shall identify, at a minimum, the routine structural and non-structural measures specified in the current Drainage Area Management Plan (DAMP). The WQMP may include one or more of the following:

- Discuss regional water quality and/or watershed programs (if available for the project);
- Address Site Design BMPs (as applicable) such as minimizing impervious areas, maximizing permeability, minimizing directly connected impervious areas, creating reduced or "zero discharge" areas, and conserving natural areas;
- Include the applicable Routine Source Control BMPs as defined in the DAMP;
- Demonstrate how surface runoff and subsurface drainage shall be managed and directed to the nearest acceptable drainage facility (as applicable), via sump pumps if necessary.

Standard Condition WQ03: Prior to the issuance of a Certificate of Use and Occupancy, the Applicant shall demonstrate compliance with the WQMP in a manner meeting the satisfaction of the Manager, Inspection Services Division, including:

- Demonstrate that all structural Best Management Practices (BMPs) described in the project's WQMP have been implemented, constructed, and installed in conformance with approved plans and specifications;
- Demonstrate that the Applicant has complied with all non-structural BMPs described in the project's WQMP;
- Submit for review and approval an Operations and Maintenance (O&M) Plan for all structural BMPs for attachment to the WQMP;
- Demonstrate that copies of the project's approved WQMP (with attached O&M Plan) are available for each of the incoming occupants;

- Agree to pay for a Special Investigation from the County of Orange for a date (12) twelve months after the issuance of a Certificate of Use and Occupancy for the project to verify compliance with the approved WQMP and O&M Plan; and

- Demonstrate that the Applicant has agreed to and recorded one of the following: 1) the CC&R's (that must include the approved WQMP and O&M Plan) for the project Home Owner's Association; 2) a water quality implementation agreement that has the approved WQMP and O&M Plan attached; or 3) the final approved Water Quality Management Plan (WQMP) and Operations and Maintenance (O&M) Plan.

Standard Condition WQ04: Prior to the issuance of any Grading or Building Permits, the Applicant shall demonstrate compliance under California's General Permit for Stormwater Discharges Associated with Construction Activity by providing a copy of the Notice of Intent (NOI) submitted to the State Water Resources Control Board and a copy of the subsequent notification of the issuance of a Waste Discharge Identification (WDID) Number or other proof of filing in a manner meeting the satisfaction of the Manager, OC Development Services. Projects subject to this requirement shall prepare and implement a Stormwater Pollution Prevention Plan (SWPPP). A copy of the current SWPPP shall be kept at the project site and be available for County review on request.

Standard Condition WQ05: Prior to the issuance of any Grading or Building Permit, the Applicant shall submit an Erosion and Sediment Control Plan (ESCP) in a manner meeting approval of the Manager, OC Development Services, to demonstrate compliance with local and state water quality regulations for grading and construction activities. The ESCP shall identify how all construction materials, wastes, grading or demolition debris, and stockpiles of soil, aggregates, soil amendments, etc. shall be properly covered, stored, and secured to prevent transport into local drainages or coastal waters by wind, rain, tracking, tidal erosion or dispersion. The ESCP shall also describe how the Applicant will ensure that all BMP's will be maintained during construction of any future public rights-of-way. A copy of the current ESCP shall be kept at the project site and be available for County review on request.

NOISE

Standard Condition N02: Except when the interior noise level exceeds the exterior noise level, the Applicant shall sound attenuate all nonresidential structures against the combined impact of all present and projected noise from exterior noise sources to meet the interior noise criteria as specified in the Noise Element and Land Use/Noise Compatibility Manual. Prior to the issuance of any Building Permits, the Applicant shall submit to the Manager, OC Development Services, an acoustical analysis report prepared under the supervision of a County-certified acoustical consultant which describes in detail the exterior noise environment and the acoustical design features required to achieve the interior noise standard and which indicates that the sound attenuation measures specified have been incorporated into the design of the project.

Standard Condition N08: Prior to the issuance of any Building or Grading Permits, the Applicant shall obtain the approval of the Manager, OC Development Services of an acoustical analysis report and appropriate plans which demonstrate that the noise levels generated by this project during its operation shall be controlled in compliance with Orange County Codified Ordinance, Division 6 (Noise Control). The report shall be prepared under the supervision of a County-certified Acoustical Consultant and shall describe the noise generation potential of the project

during its operation and the noise mitigation measures, if needed, which shall be included in the plans and specifications of the project to assure compliance with Orange County Codified Ordinance, Division 6 (Noise Control).

Standard Condition N10:

A. Prior to the issuance of any Grading Permits, the project proponent shall produce evidence acceptable to the Manager, OC Development Services, that:

    a. All construction vehicles or equipment, fixed or mobile, operated within 1,000' of a dwelling shall be equipped with properly operating and maintained mufflers.

    b. All operations shall comply with Orange County Codified Ordinance Division 6 (Noise Control).

    c. Stockpiling and/or vehicle staging areas shall be located as far as practicable from dwellings.

B. Notations in the above format, appropriately numbered and included with other notations on the front sheet of the project's permitted grading plans, will be considered as adequate evidence of compliance with this condition.

TRAFFIC/CIRCULATION

Standard Condition T07: Prior to the issuance of any Grading Permits, the Applicant shall provide adequate sight distance per Standard Plan 1117 at all street intersections, in a manner meeting the approval of the Manager, OC Development Services. The Applicant shall make all necessary revisions to the plan to meet the sight distance requirement such as removing slopes or other encroachments from the limited use area in a manner meeting the approval of the Manager, OC Development Services.

Standard Condition T17: Prior to any street construction or relocation, when there are monuments in the project area which control the location of subdivisions, streets or highways, or provide survey control, the developer shall locate and reference the monuments and shall reset them after construction as required by Section 8771 of the Business and Professions Code, in a manner meeting the approval of the Manager, Construction.

5.2 INVENTORY OF MITIGATION MEASURES

CULTURAL RESOURCES

Mitigation Measure 4.5-1: If human remains are found during earthwork activities, then grading and construction activities shall cease in the vicinity of the find pursuant to State Health and Safety Code Section 7050.5 until the County Coroner has made the necessary findings as to origin and disposition pursuant to Section 5097.98 of the California Public Resources Code. If the remains are determined to be of Native American descent, then the County Coroner shall notify the Native American Heritage Commission within 24 hours.

HAZARDS AND HAZARDOUS MATERIALS

Mitigation Measure 4.9-1: Prior to issuance of a grading permit, the Applicant shall retain a qualified Phase II/Site Characterization Specialist to conduct verification soil and soil gas sampling to ensure residual contamination is below the screening values for protection of construction workers published by the California Environmental Protection Agency. Should any samples determine that residual contamination in either soil or soil gas present a risk to construction workers during site disturbance activities, a Construction Contingency Plan shall be developed by an Applicant-retained Phase II/Site Characterization Specialist, submitted to the Manager, OC Development Services, prior to issuance of a grading permit. At a minimum, the Construction Contingency Plan shall include guidance for handling, segregating, and characterizing potentially contaminated soil generated during grading activities in order to minimize impacts to worker safety and the environment. The Plan shall also identify that the Contractor must verify that all exported soils, if any, are not contaminated with hazardous materials above regulatory thresholds in consultation with the Specialist. If export soils are determined to be contaminated above regulatory thresholds, the Specialist shall recommend proper handling, use, and/or disposal of these soils.

Mitigation Measure 4.9-2: At least 48 hours, excluding weekends and holidays, prior to any lane closure, the construction contractor shall notify OCSD, OCFA, OCTA, as well as the Orange County and Santa Ana Public Works Directors, of construction activities that would impede movement (such as road or lane closures) along Ponderosa Street, 17th Street, and Tustin Avenue, to allow for uninterrupted emergency access and maintenance of evacuation routes. Additionally, the project Applicant and the County of Orange shall coordinate with OCTA in advance of any construction-related activities that could affect bus operations in the study area.

TRAFFIC/CIRCULATION

Mitigation Measure 4.17-1: Prior to issuance of a Certificate of Occupancy, the Applicant shall restripe the northbound travel lane of Tustin Avenue, north of 17th Street to the southerly project driveway, in order to accommodate a third northbound through lane. The specific design of the restriping shall be prepared by a licensed professional Traffic Engineer and shall be approved by the Manager, OC Development Services, or their designee.

Mitigation Measure 4.17-2: Prior to issuance of a Certificate of Occupancy, the Applicant shall install appropriate treatments (e.g., a raised median, restriping, or signage) to ensure left turn movements are restricted from the Salon and Spa Driveway onto Tustin Avenue. The treatment design shall be prepared by a licensed professional Traffic Engineer and shall be approved by the City of Santa Ana Public Works Director, or their designee. However, should regulatory approvals not be granted by the City of Santa Ana by the date of Certificate of Occupancy, the Applicant shall provide full monetary funds in an amount calculated by the City of Santa Ana Engineer in a dedicated account with the City of Santa Ana that would specifically earmark this account for the future installation of these specific treatments.

Mitigation Measure 4.17-3: Prior to issuance of a Certificate of Occupancy, the project Applicant shall install appropriate treatments (e.g., appropriate signage) to ensure eastbound and westbound left turn movement at Tustin Avenue at Catalina Avenue are restricted. The treatment design shall be prepared by a licensed professional Traffic Engineer and shall be approved by the Manager, OC Development Services, or their designee.

Mitigation Measure 4.17-4: Prior to issuance of a Certificate of Occupancy, the Applicant shall provide fair-share contribution fees into a dedicated account with the City of Santa Ana for restriping of the intersection of Tustin Avenue at Santa Clara Avenue to accommodate a second northbound left turn lane onto westbound Santa Clara Avenue. Proof of funds to the City of Santa Ana shall be provided to the Manager, OC Development Services.

TRIBAL CULTURAL RESOURCES

Mitigation Measure 4.18-1: If evidence of subsurface tribal cultural resources is found during construction, excavation, and/or other construction activities in that area, construction activities shall cease and the construction contractor shall contact the Manager, OC Development Services/Planning. With direction from the Manager, an archaeologist certified by the County of Orange shall be retained to evaluate the discovery prior to resuming grading in the immediate vicinity of the find. If warranted (as determined by the Manager, OC Development Services/Planning in consultation with the archaeologist), the archaeologist shall contact the Native American Heritage Commission to determine the appropriate Native American monitor for the find. The archaeologist and Native American Monitor shall collect the resource and prepare a technical report describing the results of the investigation. The test-level report shall evaluate the site including discussion of significance (depth, nature, condition, and extent of the resources), final mitigation recommendations, and cost estimates.

6.0 REPORT PREPARATION PERSONNEL

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