

# Yorba Linda Town Center Subsequent EIR



Prepared for:

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July 2015

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Appendix 5.6	Traffic Impact Analysis prepared by Urban Crossroads dated February 11, 2015; Short Term Construction Traffic Impact Assessment prepared by Urban Crossroads dated May 26, 2015



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## Introduction

This introduction is included to provide the reader with a general overview of 1) the purpose of an environmental impact report (EIR); 2) a description of the environmental review process conducted for this project to date; 3) the lead, responsible, and trustee agencies for the project; and 4) the general format of this EIR.

### **Purpose and Legal Authority**

This draft Subsequent EIR evaluates the proposed Yorba Linda Town Center Project (Town Center). Briefly, the Yorba Linda Town Center Specific Plan project was approved in 2011 and was designed to implement the City of Yorba Linda's (City) goals of revitalizing downtown Yorba Linda. Approval of the Specific Plan allowed a maximum increase over existing conditions of 95,000 square feet of retail-commercial/office uses, a potential performing arts center, and a maximum of 151 residential dwelling units. Other components of the project included revised street configurations within the project site, landscape and streetscape improvements, architectural elements and security lighting, building signage, and necessary upgrades to utility systems.

Since this time, a project applicant has approached the City and is requesting modifications to the approved Town Center Specific Plan. These changes are substantive enough to require additional environmental documentation for the project. This draft Subsequent EIR has been prepared in accordance with the California Environmental Quality Act (CEQA), the state guidelines for the implementation of CEQA, and applicable City of Yorba Linda adopting procedures for implementation of the CEQA and CEQA Guidelines, including §15162 (Subsequent EIRs) and §15120 through §15131. This EIR identifies and discusses potential Project-specific and cumulative environmental impacts that may occur if this Proposed Project is implemented. The intent of this EIR is to 1) be an informational document that serves to inform public agency decision makers and the general public of the potential environmental impacts of a project, 2) identify possible ways to minimize or avoid any potential significant impacts either through mitigation or the adoption of alternatives, and 3) disclose to the public required agency approvals.

The principal use of an EIR is to provide input and information to the comprehensive planning analysis. Given the important role of the EIR in this planning and decision-making process, it is important that the information presented in the EIR be factual, adequate, and complete. The standards for adequacy of an EIR, defined in §15151 of the CEQA Guidelines, are as follows:

An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the

sufficiency of an EIR is to be reviewed in light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure.

## Scope and Content

The City determined that an EIR should be prepared for the Town Center Project. As a result, a Notice of Preparation (NOP) was prepared and circulated between December 1, 2014, and December 30, 2014, for the required 30-day review period. The purpose of the NOP was to solicit early comments from public agencies with expertise in subjects that will be discussed in the draft EIR. The NOP and written responses to the NOP are contained in **Appendix 1** of this EIR. The City of Yorba Linda also held a scoping meeting on the project to solicit oral and written comments from the public and public agencies. The public scoping meeting was held December 8, 2014. Comments received at the meeting are contained in **Appendix 1** of this EIR.

Topics requiring a detailed level of analysis evaluated in this draft EIR have been identified based upon the responses to both the NOP and a review of the project by the City of Yorba Linda. The City determined through the initial review process that impacts related to the following topics were potentially significant and required a detailed level of analysis in this draft EIR:

- Cultural Resources
- Land Use
- Air Quality
- Global Climate Change
- Noise
- Traffic and Circulation

Other environmental issues were eliminated or “scoped out” from detailed review in this EIR during the NOP process, as the impacts were determined to have no impact, less than significant impacts, or significant impacts that could be mitigated to a less than significant level. These environmental issues are not discussed in detail within this draft EIR.<sup>1</sup> For a complete discussion of the environmental issues that were scoped out from this draft EIR (refer to **Appendix 1** and **Section 7, Effects Not Found Significant**).

## Lead, Responsible, and Trustee Agencies

The City as the public agency with authority for approval of the Town Center Project is the “Lead Agency” of the EIR, as defined by CEQA. As such, the City is responsible for ensuring that the EIR

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<sup>1</sup> CEQA Guidelines, §15063(c)(3)

satisfies the procedural and informational requirements of CEQA and for the consideration and certification of the adequacy of the EIR prior to making any decision regarding the project.

“Responsible Agency” means a public agency that which proposes to carry out or approve a project for which a Lead Agency is preparing or has prepared an EIR or Negative Declaration. For the purpose of CEQA, the term “Responsible Agency” includes all public agencies other than the Lead Agency having discretionary approval over the project. During the NOP review period, no public agency identified itself as a Responsible Agency.

“Trustee Agency” means a state agency having jurisdiction by law over natural resources affected by a project, which are held in trust for the people of the State of California. During the NOP review period, no public agency identified itself as a Trustee Agency.

## **EIR Review Process**

This EIR is being circulated for a 30-day public review period. During this public review period, written comments concerning the adequacy of the document may be submitted by any interested person and/or affected agency, to the City of Yorba Linda, 4845 Casa Loma Avenue, Yorba Linda, California 92886, Attention: David Brantley, Principal Planner, AICP.

Following the public review period, all oral and written comments will be responded to in writing, and incorporated into a final EIR. At least 10 days prior to a hearing to certify the final EIR, proposed responses to comments on the draft EIR by public agencies will be sent to those agencies. In addition, a Mitigation Monitoring and Reporting Program will be prepared as part of the final EIR package. This final EIR will then be presented to the City of Yorba Linda City Council for potential certification as the environmental document for the project. All persons who commented on the draft EIR will be notified of the availability of the final EIR and the date of the public hearing before the City Council.

## **Report Format**

As stated, a principal objective of CEQA is that the environmental review process be a public one. In meeting this objective, the EIR must inform members of the general public, decision-makers, and technically oriented reviewers of the physical impacts associated with a proposed project. To this end, specific features have been incorporated into this Subsequent EIR to make it more understandable for non-technically oriented reviewers, yet provide the technical information necessary for agency personnel.

A description of the organization of this Subsequent EIR and the content of each section is provided below to assist the reader in using this EIR as a source of information about the Proposed Project. Sections of the draft Subsequent EIR following this introduction are organized as follows.

The **Executive Summary** includes a general description of the environmental setting, project description, and alternatives to the Proposed Project. Environmental impacts and mitigation measures are summarized in a tabular form.

**Section 1, Introduction**, includes the purpose of a Subsequent EIR, the environmental review process, identifies the lead, responsible, and trustee agencies, and provides the general format of the Subsequent EIR.

**Section 2, Project Description**, presents a detailed description of the Proposed Project as required by the CEQA Guidelines. Topics addressed in this section include the project objectives and the characteristics of the project.

**Section 3, Environmental Setting**, contains a description of the existing environmental conditions of the Town Center area.

**Section 4, Cumulative Impact Analysis**, identifies the methods to analyze cumulative impacts through the CEQA process and provides a list of past, present, and reasonably foreseeable future projects.

**Section 5, Environmental Impact Analysis**, contains analysis of each of the environmental topics addressed in this EIR. Each topic is addressed in separate subsections as follows: environmental setting; project impacts; cumulative impacts; mitigation measures; and residual impacts after mitigation.

**Section 6, Alternatives**, provides analysis of alternatives to the Proposed Project. As required by the CEQA Guidelines, a discussion of the reasons for selection of alternatives analyzed is provided with a comparative analysis of each alternative with the project.

**Section 7, Effects Not Found Significant**, discusses those effects identified as not significant during the NOP process.

**Section 8, Significant Irreversible Environmental Changes**, evaluates whether the project would result in the irretrievable commitment of resources or would cause irreversible change in the environment.

**Section 9, Growth Inducement**, discusses the ways in which the Proposed Project could foster economic or population growth in the area.

**Section 10, List of Preparers**, provides a list of persons involved in the preparation of this EIR.

**Section 11, References**, provides a list of all organizations and persons contacted during preparation of the draft EIR, and lists all documents used as a basis of information for the draft EIR.

**Appendices** to this EIR include the NOP and written responses, as well as selected technical reports and data generated during the preparation of the draft EIR.

During the preparation of the Draft EIR, the project applicant revised the site plan slightly. The final result was a slightly smaller project in terms of area and commercial use. Also, parking studies for the project determined that a parking structure was not required to meet parking requirements. Technical reports were prepared based upon the larger project and subsequently took on a “worse-case” analysis. The change in project area relates in part to the parking configuration and the City’s desire that there be a public parking structure to serve the greater Town Center area.

### **Incorporation by Reference**

The following documents are incorporated by reference in this draft EIR, consistent with §15150 of the CEQA Guidelines, and are available for review at the City of Yorba Linda in the City’s Planning Division.

- City of Yorba Linda General Plan, 1993
- City of Yorba Linda General Plan EIR, 1993
- Yorba Linda Town Center Specific Plan, 2011
- Yorba Linda Town Center Specific Plan Draft and Final EIRs, 2011

## 1. Executive Summary

### 1.1 Introduction

*The intent of the Executive Summary is to provide the reader with a clear and simple description of the Proposed Project and its potential environmental impacts. Section 15123 of the California Environmental Quality Act (CEQA) Guidelines requires that the summary identify each significant effect, recommended mitigation measure(s), and provide alternatives that would minimize or avoid potential significant impacts. The summary is also required to identify areas of controversy known to the lead agency, including issues raised by agencies and the public and issues to be resolved, including the choice among alternatives and whether or how to mitigate significant effects. This section focuses on the major areas of the Proposed Project that are important to decision makers and utilizes non-technical language to promote understanding.*

### 1.2 Project Location

The City of Yorba Linda is located in northeast Orange County, California, approximately 38 miles southeast of Los Angeles (**Figure 2-1, Regional Vicinity Map**). The Yorba Linda Town Center Project area is located in the western portion of the City, on the east side of Imperial Highway (**Figure 2-2, Project Area Vicinity Map**). The Yorba Linda Town Center Project is a proposed private retail commercial development (including a public parking structure) located on approximately 11.22 acres (not including right of way dedication) within the Yorba Linda Town Center Specific Plan Area, east of the Historic Town Center District. Bordered by Imperial Highway, Yorba Linda Boulevard, and Lakeview Avenue, existing public roads through the site will be realigned and vacated per Chapter 5, Mobility & Circulation, of the Specific Plan.

In 2011, the Yorba Linda Town Center Specific Plan was approved for a 31-acre site of which the proposed 11.22-acre Project Site is a part. The focal point of the 31-acre study area was Main Street, which runs north and south between Imperial Highway and Lemon Drive. The study area also included the library to the west and public/institutional and residential uses to the east. The Specific Plan included three main areas in the Town Center study area. The first is Main Street, which is characterized by several older buildings that are of architectural merit. Streetscape improvements implemented over the years have created a pedestrian atmosphere. Ground floor tenant space of the existing buildings on Main Street houses a mix of retail and office uses. To the west of Main Street is the second area, which is dominated by the Yorba Linda Public Library, which was built several years ago and has reached capacity. The Specific Plan provided for the expansion of the library in the existing location and/or relocation within the proposed Civic/Cultural Arts and Public Facilities District. To the east of Main Street is the third area, which consists of several single-family residences, a church, a fire station, and vacant properties. Existing commercial uses at the northwest corner of Lakeview Avenue and Yorba Linda Boulevard include an office building and a restaurant.

Existing surrounding uses include commercial and retail uses to the south and west; retail, office and residential uses to the north; and commercial, retail, and residential uses to the east.

The General Plan land use designation for the Project area is Area Plan – Community Core.

### 1.3 Project Characteristics

To facilitate development of the Proposed Project, certain amendments to the Town Center Specific Plan<sup>2</sup> land use districts are proposed, as reflected in the following section. Also included among proposed revisions to the Specific Plan is an extension of New Street “A” easterly through the retail center site to Valencia Avenue. Additionally, three existing residential buildings that previously were determined eligible for local historic designation are proposed to be relocated or demolished. Five potential relocation sites have been identified, as further discussed in the following section.

The Project will consist of 1- and 2-story structures organized around a central open space (“commons”) and a strong distributed pedestrian network. Proposed uses include retail, restaurants, a cinema, and a supermarket totaling approximately 125,345 to 149,295 square feet (maximum) of gross leasable area (GLA). The existing 2-story office building within the Project area will remain. Parking will be provided by a combination of a public parking structure located to the north of the commons area and surface parking distributed across the site, achieving a ratio of approximately 4.8 stalls per 1,000 square feet of GLA, as reflected in **Table 1-1** below. The project applicant would pay an in-lieu fee for parking spaces required for the Proposed Project within the public parking structure.

**Table 1-1 Land Use Summary**

<b>Summary</b>	
Gross site area	±8.44 ac (361,474 sf)
Less public road	-0.41 ac (17,829 sf)
Net site area	±8.03 ac (349,645 sf)
<b>Building Area</b>	
Theater	49,500-59,400 sf
Existing office	11,080 sf
Market	26,400-35,000 sf
Shops 1	7,800 sf
Shops 2	5,400 sf
Pad 1	6,500 sf
Pad 2	5,200 sf
Pad 3	4,000 sf
Pad 4	5,300 sf
Existing pad	4,165 sf
Optional	0-5,000 sf
Gross building area	125,345-149,295 sf
Floor area ratio	0.34

<sup>2</sup> Yorba Linda Town Center Specific Plan can be found at the following link: <http://ci.yorba-linda.ca.us/index.php/city-departments/community-development?id=577:yorba-linda-town-center-specific-plan-final&catid=1>

## 1.4 Project Objectives

The following are the City project objectives for the Yorba Linda Town Center Project:

- Create an upscale dining and shopping destination to serve local area residents, businesses, and visitors.
- In keeping with the Town Center Specific Plan vision, deliver a well-designed and architecturally pleasing commercial center that offers new and exciting tenants in a welcoming environment.
- Develop a project that serves as a community gathering space and enhances surrounding uses and businesses.
- In keeping with the Town Center Specific Plan vision, create a pedestrian-friendly shopping and dining experience, as well as provide efficient on-site and off-site traffic circulation so that customers can easily and safely access the Project.
- Open the project in calendar year 2016 to capture key retail and restaurant users, and deliver the community a project that has been considered for many years.

## 1.5 Project Alternatives

### 1.5-1 Alternative 1: No Project Alternative

This alternative is required by the CEQA Guidelines and compares the impacts that might occur if the site is left in its current condition with those impacts that would be generated by the Proposed Project. Under this alternative, no development or redevelopment would occur beyond what exists today, and the project area would retain the existing zoning designations. In addition, the existing circulation system would remain the same.

### 1.5-2 Alternative 2: Residential Replaces Supermarket Use

This alternative would allow residential development on approximately 1.5 acres in the central portion of the Project area, replacing the proposed supermarket use. Up to 30 dwelling units could be developed with a residential density of 20 dwelling units per acre, or up to 15 dwelling units could be developed with a residential density of 10 dwelling units per acre. For purposes of this analysis, the residential units would consist of attached units. Residential uses would replace the proposed supermarket use. Other elements of the Town Center Specific Plan would remain as proposed.

### 1.5-3 Alternative 3: Expanded Park Replaces Supermarket Use

This alternative would expand the central park and replace the proposed supermarket use. Approximately 1.5 acres of community park would be provided in place of the supermarket use. Other elements of the Town Center Specific Plan would remain as proposed.

### **1.5-4 Alternative 4: Preservation of One of the Cottages**

Alternative 4 would preserve one of the three cottages that currently exist on the Project Site. Under the Proposed Project all three cottages would be removed to another site or salvaged and demolished. Other elements of the Town Center Specific Plan would remain as proposed.

## **1.6 Comparison of Alternatives**

Alternative 1, No Project, would reduce the number and extent of environmental impacts associated with the Proposed Project. However, this alternative would not meet the basic project objectives, which call for creating a vision and a land use plan for reuse of underutilized parcels that would result in an attractive community destination.

Alternative 2, Residential Replaces Supermarket Use, would allow residential development on 1.5 acres adjacent to the central park and would replace the proposed supermarket use. This alternative would be environmentally superior to the Proposed Project. Furthermore, Alternative 2 would mostly satisfy the outlined Project objectives, but may not as fully accomplish creating an attractive Town Center environment that serves as a community destination for a variety of events and gatherings and addresses a broad a range of resident, businesses, and visitor needs. The proposed supermarket also plays a role in the economic feasibility of the Project Site, as it will provide basic daily needs in terms of perishables that bring patrons into the center.

Alternative 3, Expanded Park Replaces Supermarket Use, would expand the central park by 1.5 acres. The expanded park area would replace the proposed supermarket use. This alternative would reduce the number and extent of environmental impacts associated with the Proposed Project. Section 15126.6(e)(2) of the CEQA Guidelines indicates that, if the No Project Alternative (Alternative 1) is the “environmentally superior” alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. Among the remaining Project alternatives, Alternative 3 is considered to be the “environmentally superior” alternative for purposes of CEQA because fewer use trips would be generated, reducing impacts to air quality, global climate change, noise, and traffic, and circulation. However, this alternative would not fully meet or would impede some of the fundamental Project objectives.

Alternative 4, Preservation of One Cottage Residence, would keep the remainder of the Project the same. This alternative would preserve one of the cottages while maintaining the remainder of the proposed uses. Alternative 4 would satisfy all of the Project objectives while incrementally reducing the impacts to cultural resources by preserving one of the cottages. This alternative would not be considered the environmentally preferred alternative as it would still incur the significant and unavoidable impacts to cultural resources, air quality, and traffic and circulation.

### **1.7 Areas of Controversy/Issues To Be Resolved**

Areas of controversy raised in the Notice of Preparation (NOP) comments concern the potential impacts of the Yorba Linda Town Center Project with regard to fire access and fire house interaction with Project noise, air quality/greenhouse gas as it relates to sensitive receptors, land use, geotechnical, project and cumulative traffic, and circulation. Copies of all written comments submitted in response to the NOP are presented in **Appendix 1** of this EIR.

Issues to be resolved include whether to approve the Proposed Project, whether or how to mitigate the identified significant project and cumulative impacts, and whether to select one of the project alternatives.

### **1.8 Significant Impacts/Mitigation Measures**

This EIR has been prepared to assess each potentially significant impact to the environment that could result with implementation of the proposed Yorba Linda Town Center Project. For a detailed discussion regarding potential impacts, refer to **Section 5, Environmental Impact Analysis**, of this EIR.

### 1.9 Matrix of Mitigation Measures

Environmental Impact	Mitigation Measure(s)	Residual Impact
<p><b>Air Quality</b></p> <p><b>Construction</b></p> <p>The peak daily emissions generated during the grading/soil import phase of the Project would exceed the regional emission thresholds recommended by the SCAQMD for NO<sub>x</sub>. These emissions are primarily due to the import of 100,000 cy of soil and the on-site equipment necessary to handle daily soil and grading volumes. It should be noted that the Project would not exceed any other regional significance thresholds recommended by the SCAQMD during any other construction phase.</p> <p>The implementation of Regulatory Compliance Measure 5.1-1 would reduce the Project's construction-related fugitive dust emissions. However, construction-related NO<sub>x</sub> emissions would exceed the established SCAQMD thresholds of significance, and regional construction air quality impacts would be considered significant and unavoidable.</p> <p><b>Operational</b></p> <p>The operational emissions generated by the Project would not exceed the regional thresholds of significance set by the SCAQMD. Therefore, impacts associated with regional operational air quality emissions would be less than significant.</p> <p>The Project would not result in potentially significant CO "hot spots" and a Project-specific CO hotspots analysis is not needed to reach this conclusion.</p> <p>The Project would not include the operations of any land uses routinely involving the use, storage, or processing of carcinogenic or non-carcinogenic toxic air contaminants.</p> <p>Based on mandatory compliance with SCAQMD Rules, no construction activities or materials that would create a significant level of objectionable odors are proposed.</p> <p>The Project would not create objectionable odors affecting a substantial number of people during construction or long-term operation. Therefore, a less than significant impact would occur</p>	<p>MM 5.1-1</p> <p>The Applicant shall implement all control measures required and/or recommended by the SCAQMD (i.e., Rule 403 - Fugitive Dust), including but not limited to the following:</p> <ul style="list-style-type: none"> <li>• Use watering to control dust generation during demolition of structures or break-up of pavement;</li> <li>• Water active grading/import areas and unpaved surfaces at least three times daily;</li> <li>• Cover stockpiles with tarps or apply non-toxic chemical soil binders;</li> <li>• Limit vehicle speed on unpaved roads to 15 miles per hour;</li> <li>• Sweep daily (with water sweepers) all paved construction parking areas and staging areas;</li> <li>• Provide daily clean-up of mud and dirt carried onto paved streets from the Project Site;</li> <li>• Suspend excavation and grading activity when winds (instantaneous gusts) exceed 15 miles per hour over a 30-minute period or more; and</li> <li>• An information sign shall be posted at the entrance to each construction site that identifies the permitted construction hours and provides a telephone number to call and receive information about the construction project or to report complaints regarding excessive fugitive dust generation. Any reasonable complaints shall be rectified within 24 hours of their receipt.</li> </ul>	<p>Significant and Unavoidable after Construction</p>

Environmental Impact	Mitigation Measure(s)	Residual Impact
<p>with respect to the creation of objectionable odors.</p> <p>Through evaluation of the Project against the two criteria for consistency with regional plans and the regional AQMP adopted by the SCAQMD, impacts with respect to regional plans and AQMP consistency would be less than significant.</p>		
<p><b>Cultural Resources</b></p>		
<p>Construction of the Proposed Project would require demolition of three locally eligible historical resources that are located within the Project Site: single-family cottages at 4842, 4852, and 4871 School Street. All three cottages were identified with a status code of 5S3 during the 2009 Citywide Historic Property Survey; therefore, the cottages located at 4842, 4852, and 4871 School Street are considered historical resources under CEQA. Under the Proposed Project, these historical resources would be removed or demolished; therefore, the Project would result in a potentially significant impact to historical resources.</p> <p>With Mitigation Measure 5.2-1, Recordation, and Mitigation Measure 5.2-2, Relocation and Rehabilitation, incorporated, as described below, potential impacts to historical resources would be reduced to less than significant.</p> <p>However, if after 45 days there is no party willing to purchase and rehabilitate the relocated cottages per Mitigation Measure 5.2-2, Mitigation Measure 5.2-1, Recordation, and Mitigation Measure 5.2-3, Salvage, would need to be implemented. Without successful completion of relocation and rehabilitation, potential impacts to historical resources would remain significant and unavoidable.</p> <p>The five relocation options include the Public Library Site (also known as the Strawberry Field Site), the Altrudy Site, the Olinda Street Site, the 4861-4871 School Street Site, and relocation to undefined locations.</p> <p>With the relocation of the cottages to Options 1, 2, or 3 and the incorporation of Mitigation Measure 5.2-1, Recordation, and Mitigation Measure 5.2-2, Relocation and Rehabilitation, as described above, potential impacts to 4842, 4852, and 4871 School Street would be reduced to less than significant.</p>	<p>MM 5.2-1  <b>Recordation.</b> Prior to the issuance of a relocation permit for 4842, 4852 and 4872 School Street, a recordation document prepared in accordance with Historic American Buildings Survey (HABS) Level III requirements shall be completed for the existing buildings. Similarly, 4842, 4852, and 4871 School Street shall be recorded prior to relocation and demolition, to record the structures at their existing locations before removal. The recordation document shall be prepared by a qualified architectural historian or an historic preservation professional who satisfies the Secretary of the Interior's Professional Qualification Standards for Architectural History pursuant to 36 CFR 61. This recordation document shall include a historical narrative on the architectural and historical importance of the Craftsman bungalow style, the construction history of each building, the history of occupancy and use, the association as a school building and with the other bungalows on School Street (4832, 4842 and 4852 School Street) used as school buildings, and shall record the existing appearance of each building in professional large format photographs. The building exteriors, representative interior spaces, character-defining features, as well as the property setting and contextual views shall be documented. All documentation components shall be completed in accordance with the Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation (HABS standards). Copies of the completed report shall be distributed to the South Central Coastal Information Center at the California State University, Fullerton, City of Yorba Linda Planning Department, and the City of Yorba Linda Public Library Special Collections (main branch).</p> <p>MM 5.2-2  <b>Relocation and Rehabilitation.</b> Since retention of the cottages located at 4842, 4852 and 4871 School Street is not feasible for</p>	<p>Significant and Unavoidable if structures are demolished</p>

Environmental Impact	Mitigation Measure(s)	Residual Impact
<p>If after 45 days there is no party willing to purchase and rehabilitate the cottages at 4842, 4852, and 4871 School Street, Mitigation Measure 5.2-3, Salvage, would need to be implemented. However, without successful completion of relocation and rehabilitation of all three cottages, potential impacts to historical resources would remain significant and unavoidable.</p>	<p>Implementation and development of the Proposed Project, they will first be recorded (see Mitigation Measure MM 5.2-1, Recordation) prior to relocation to an appropriate off-site location with compatible setting and association qualities. As discussed above, PCR recommends the relocation of the three cottages to the Olinda Street Site. If Option 3 (the Olinda Street Site) is not a feasible option for relocation, Option 1 (Public Library/Strawberry Field Site) or Option 2 (Alrudy Site) would be feasible alternatives, and impacts would be reduced to less than significant. Implementation of this measure will be satisfied in part by advertisement of the structure's availability in historic preservation websites such as HistoricForSale, Historic Properties, Old Houses, and Preservation Directory and a local newspaper such as the Orange County Register for a period of not less than thirty (30) days by the Applicant. Any such relocation efforts shall be undertaken in accordance with a Relocation and Rehabilitation Plan prepared by the party taking possession of the structure to be moved. The Relocation and Rehabilitation Plan shall be developed in conjunction with a qualified architectural historian, historic architect, or historic preservation professional who satisfies the Secretary of the Interior's Professional Qualifications Standards for History, Architectural History, or Architecture, pursuant to 36 CFR 61. The Plan shall include relocation methodology recommended by the National Park Service, which are outlined in the booklet entitled "Moving Historic Buildings," by John Obed Curtis (1979), as included in Appendix 5.2 Attachment F. Upon relocation of the structure to the new site, any maintenance, repair, stabilization, rehabilitation, preservation, conservation, or reconstruction work performed in conjunction with the relocation of the building shall be undertaken in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Properties and the Town Center Specific Plan guidelines (as applicable). The Relocation and Rehabilitation Plan shall be reviewed and approved by the City of Yorba Linda Planning Department prior to its implementation. Any subsequent alterations of the property requiring a building permit would be subject to the standards and principles outlined in the City's</p>	

Environmental Impact	Mitigation Measure(s)	Residual Impact
	<p>Historic Combining Zone. In addition, a plaque describing the date of the move and the original location shall be placed in a visible location on each of the buildings.</p> <p>If after 45 days it is evident that no party is interested in purchasing one or all of the building(s) per the mitigation measure stipulated above, then Mitigation Measure MM 5.2-3 would be required to document and salvage the key character-defining physical features of the cottages.</p> <p><b>MM 5.2-3 Salvage.</b> Prior to demolition, key character-defining physical features of the cottages (e.g., window elements, shingling) shall be made available for use in restoration/ rehabilitation projects for 4842, 4852 and 4871 School Street, or within the neighborhood or the City of Yorba Linda. These salvaged features may also be donated for curatorial and/or educational purposes to a local historical society, preservation organization, or the like. Unsound, decayed, or toxic materials (e.g. asbestos) need not be included in the salvage process. The salvage materials shall be advertised for a period of not less than 30 days in historic preservation websites and the Orange County Register, as well as by posting on the Project Site itself and by other means as deemed appropriate. Salvage efforts shall be conducted by the Applicant. These efforts shall be documented in writing by summarizing all measures taken to encourage receipt of salvage materials by the public. Copies of notices, evidence of publication of such notices, along with a summary of results from the publicity efforts, a list of salvage offers (if any) that were made, and an explanation of why the features were not or could not be accepted shall be included in this salvage summary document. This document shall be filed by the Applicant with the City of Yorba Linda Planning Department.</p>	
<p><b>Global Climate Change</b></p> <p>Although the Project is expected to emit GHGs, the emission of GHGs by a single project into the atmosphere is not itself necessarily an adverse environmental effect. Rather, it is the increased accumulation of GHG from more than one project and many sources in the atmosphere that may result in global climate change. The resultant consequences of that climate change can</p>	<p>No Mitigation Measures required.</p>	<p>Less than Significant</p>

1. Executive Summary

1.9 – Matrix of Mitigation Measures

Environmental Impact	Mitigation Measure(s)	Residual Impact
<p>cause adverse environmental effects. A project's GHG emissions typically are relatively very small in comparison to state or global GHG emissions and, consequently, in isolation would have no significant direct impact on climate change. The Project's GHG emissions would not be considered to be substantial when compared to California's statewide GHG emissions.</p> <p>Given the Project's mixed-use design, walkability, urban location, and compliance with the CALGreen Code, the Project would be consistent with local and statewide goals and policies aimed at reducing the generation of GHGs, including SB 375 and CARB's AB 32 Scoping Plan aimed at achieving 1990 GHG emission levels by 2020.</p>		
<p><b>Land Use and Planning</b></p>		
<p>The proposed Town Center Project is consistent with the Community Core land use designation. The General Plan envisions use of a Specific Plan as a mechanism to implement the vision for the Community Core/Downtown Historical District. The Downtown Historical District is intended for "downtown" commercial and office uses as the primary land use focus. The Proposed Project includes commercial and retail land uses that are consistent with the Community Core land use designation intent and function.</p> <p>The Proposed Project would be consistent with all the applicable General Plan policies.</p> <p>The Proposed Project would be subject to the applicable goals set forth in the Final 2008 Regional Comprehensive Plan prepared by SCAG, including Regional Transportation Plan Goals and Compass Growth Visioning Principles. The Proposed Project would be consistent with all the applicable policies and principles.</p>	<p>No Mitigation Measures are required.</p>	<p>Less than Significant.</p>
<p><b>Noise</b></p>		
<p>Construction Construction of the Project would require the use of heavy equipment for the demolition of the existing on-site structures, grading, installation of new utilities, and building fabrication for the proposed development. Development activities would also involve the use of smaller power tools, generators, and other</p>	<p>MM 5.5-1 Construction activities shall 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.</p> <p>MM 5.5-2 Noise and groundborne vibration construction activities whose specific location on the Project Site may be flexible (e.g., operation</p>	<p>Less than Significant after Mitigation</p>

Environmental Impact	Mitigation Measure(s)	Residual Impact
<p>sources of noise. During each stage of development, a different mix of equipment would be operating and noise levels would vary based on the amount of equipment in operation and the location of the activity. 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 are exempt from the City's exterior noise standards. Nevertheless, as construction-related noise levels would be considered a temporary nuisance on the vicinity of the Project Site, construction-related noise impacts would be considered potentially significant.</p> <p>Vibration</p> <p>As construction-related vibration levels would be considered a temporary nuisance on the vicinity of the Project Site, construction-related vibration impacts associated with human annoyance would be considered potentially significant.</p> <p>Permanent Ambient Impacts</p> <p>Off-site locations in the Project vicinity would experience a slight increase in noise resulting from the additional traffic generated by the Project. However, it was determined that any and all noise increases would be under the acceptable exterior noise standards identified in the City's General Plan, and the 5 dBA CNEL increase threshold would be applied to this condition.</p> <p>Parking Noise</p> <p>Noise impacts from the parking structure and surface parking areas would be considered less than significant.</p> <p>Stationary Noise Sources</p> <p>As the Project would be required to comply with City Code rules and regulations, potential impacts related to stationary noise sources would be considered less than significant.</p>	<p>of compressors and generators, cement mixing, general truck idling) shall be conducted as far as possible from the nearest off-site land uses.</p> <p>MM 5.5-3 When possible, construction activities shall be scheduled so as to avoid operating several pieces of equipment simultaneously, which causes high noise levels.</p> <p>MM 5.5-4 Flexible sound control curtains shall be placed around all drilling apparatuses, drill rigs, and jackhammers when in use.</p> <p>MM 5.5-5 The Project contractor shall use power construction equipment with state-of-the-art noise shielding and muffling devices.</p> <p>MM 5.5-6 Barriers such as plywood structures or flexible sound control curtains shall be erected around the Project Site boundary to minimize the amount of noise on the surrounding land uses to the maximum extent feasible during construction.</p> <p>MM 5.5-7 All construction truck traffic shall be restricted to truck routes approved by the Building Department, which shall avoid residential areas and other sensitive receptors to the extent feasible.</p> <p>MM 5.5-8 A construction notice shall be prepared and shall include the following information: job site address, permit number, name and phone number of the contractor and owner or owner's agent, hours of construction allowed by code or any discretionary approval for the site, and City telephone numbers where violations can be reported. The notice shall be posted and maintained at the construction site prior to the start of construction and displayed in a location that is readily visible to the public and approved by the City's Building Department.</p>	
<p><b>Transportation and Traffic</b></p> <p>Construction</p> <p>Construction of the Proposed Project and recommended improvements could result in temporary disruptions of normal traffic patterns on roadways or intersections in the immediate</p>	<p>MM 5.6-1 Prior to the commencement of project construction activities, the project applicant shall prepare a construction traffic management plan in accordance with the 2012 CA MUTCD to the satisfaction of the City of Yorba Linda Traffic Engineer. These traffic management</p>	<p>Less than Significant after Mitigation</p>

Environmental Impact	Mitigation Measure(s)	Residual Impact
<p>vicinity of the active construction zone. The disruption of normal traffic flow would be limited in both duration and extent, with most disruption occurring during earlier phases of construction when earthwork and utility construction is taking place. Potential traffic disruption and conflicts between construction activities and through traffic will be controlled in accordance with the Caltrans Manual of Traffic Controls.</p> <p>Additionally, the Project's grading phase of construction will include the import of approximately 100,000 cubic yards of material. The soil import activity is anticipated to generate approximately 200 truckloads per day, or 25 truckloads per hour over an 8-hour workday.</p> <p>Haul Trips</p> <p>Trip generation volumes are based on peak construction-related traffic activity derived from the planned construction schedule. Peak traffic activity appears to occur during the grading phase of construction (i.e., import of soil), with a maximum of 200 truckloads per day. Peak hour trip generation was then estimated conservatively by placing the frequency of the construction-related truck trips evenly throughout the 8-hour workday with the same number of truck trips occurring during AM and PM peak hours as during calmer mid-day hours.</p> <p>The construction-related activities of the Project are anticipated to generate 400 daily truck trips (200 truckloads with one inbound and one outbound trip), which equates to 1,200 daily PCEs (passenger car equivalent). Therefore, during any given hour between 7:00 a.m. and 6:00 p.m., the construction-related activities of the Project are expected to generate 50 trips (150 PCEs).</p> <p>Employee-related passenger car traffic is anticipated to occur outside the AM and PM peak hours. As such, construction-related passenger car traffic during the peak hours are considered to be nominal.</p> <p>2016 Without Project Traffic Conditions</p> <p>The intersection of Main Street and Imperial Highway (SR-90) is projected to operate at LOS E due to the high delays experienced by eastbound left-turning vehicles from Imperial</p>	<p>plans shall include measures determined on the basis of site-specific conditions including, as appropriate, the use of construction signs (e.g., "Construction Ahead") and delineators, and private driveway and cross-street closures. This plan shall be approved by the City's Traffic Engineer prior to issuance of any demolition, grading or building permit.</p> <p>MM 5.6-2</p> <p>Lakeview Avenue/Yorba Linda Boulevard (#19) – The following improvement is necessary to improve the peak hour operations at the intersection to acceptable LOS under 2016 With Construction Traffic conditions:</p> <ul style="list-style-type: none"> <li>Restrict the number of haul trucks in the AM peak period (7:00 a.m. to 9:00 a.m.) to no more than 15 loads per hour. With the implementation of the mitigation measure the average delay at the intersection of Lakeview Avenue/Yorba Linda Boulevard is anticipated to be 52.7 seconds (LOS D).</li> </ul> <p>MM 5.6-3</p> <p><b>Main Street / Imperial Highway (SR-90) (#14)</b> – This intersection was found to operate at an unacceptable LOS (LOS E) during the AM peak hour only under Existing traffic conditions, however, the intersection is anticipated to continue to operate at unacceptable levels during the weekday AM peak hour only with the addition of Project traffic. Pursuant to the Highway Capacity Manual (HCM), the LOS for cross-street (or side-street) stop controlled intersections is reported for the worst movement. As such, the unacceptable LOS at this intersection is related to the anticipated high delays for eastbound left-turning vehicles. The through movements along Imperial Highway (SR-90) are anticipated to operate at acceptable LOS as they are free-flow movements. It should also be noted that as delays increase for the eastbound left turning vehicles at Main Street, these vehicles can utilize the upstream signalized intersection at Olinda Street. As such, the impact is considered less-than-significant.</p> <p>MM 5.6-4</p> <p><b>Driveway 2 / Yorba Linda Boulevard (#22)</b> – This intersection was found to operate at an acceptable LOS (LOS D or better) during the peak hours under Existing traffic conditions, and the intersection is anticipated to operate at unacceptable levels during the weekday PM peak hour only with the addition of Project traffic. Pursuant to the HCM, the LOS for cross-street (or side-street) stop</p>	

Environmental Impact	Mitigation Measure(s)	Residual Impact
<p>Highway (SR-90) onto Main Street. These vehicles can avoid these delays by utilizing the upstream signalized intersection at Olinda Street. Pursuant to discussions with City of Anaheim staff, the mitigation measures for the intersection of Imperial Highway (SR-90) and La Palma Avenue are not feasible due to the intersection's proximity to the adjacent SR-91 Freeway and Imperial Highway (SR-90) interchange, which is operated and maintained by Caltrans. It is our understanding that there are no additional improvements planned at the intersection of Imperial Highway at La Palma Avenue, and the intersection is considered to be built to its ultimate General Plan designation. As such, mitigation has not been recommended at this intersection for the purposes of the project analysis.</p> <p>Project construction traffic is not anticipated to degrade the LOS at study area intersections with the exception of the intersection of Lakeview Avenue/Yorba Linda Boulevard. The intersection of Lakeview Avenue/Yorba Linda Boulevard is anticipated to operate at acceptable LOS B with construction traffic based on ICU methodology per City of Yorba Linda requirements. However, the addition of construction-related traffic is anticipated to increase the average delay at during AM peak hour to 60.4 seconds (LOS E) based on HCM methodology.</p> <p>Imperial Highway (SR-90) is a 6-lane major arterial roadway that currently accommodates through volumes in the range of 1,500 to 2,000 vehicles per hour in each direction. Addition of construction traffic (25 trucks per hour in each direction) is not anticipated to cause a significant impact to the intersection operations at the study area intersections, with the exception of intersection of Lakeview Avenue/Yorba Linda Boulevard.</p> <p>Operational The Project would generate an estimated 6,815 total trip ends per day on a typical weekday with an estimated 346 weekday AM peak hour trips and 589 weekday PM peak hour trips. Existing traffic conditions show Driveway 2 / Yorba Linda Boulevard – LOS F PM peak hour only. The Proposed Project related to on-site access and on-site roadway standards would be less-than-significant.</p>	<p>controlled intersections is reported for the worst movement. As such, the unacceptable LOS at this intersection is related to the anticipated high delays for northbound left-turning vehicles. The turn movements associated with the Proposed Project (e.g., southbound turn movements and westbound left turn) along with through movements along Yorba Linda Boulevard are anticipated to operate at acceptable LOS. As such, the impact is considered less than significant.</p> <p>MM 5.6-5 <b>Lakeview Avenue / Buena Vista Avenue (#28)</b> – This intersection was found to operate at an unacceptable LOS (LOS E) during the AM peak hour only under Existing traffic conditions, however, the intersection is anticipated to continue to operate at unacceptable levels during the weekday AM peak hour only with the addition of Project traffic. As such, the impact is considered significant.</p> <p>MM 5.6-6 <b>Imperial Highway (SR-90) / La Palma Avenue (#33)</b> – This intersection was found to operate at an unacceptable LOS (LOS E) during the peak hours under Existing traffic conditions, however, the intersection is anticipated to continue to operate at unacceptable levels during the weekday AM peak hour only with the addition of Project traffic. The City of Anaheim has indicated that the intersection is currently built to its ultimate and there are no future plans to widen and improve this intersection. As such, additional improvements have been evaluated at this intersection, consistent with the methodology from the Yorba Linda Town Center Specific Plan TIA. As such, the impact is considered less than significant.</p> <p>MM 5.6-7 <b>Associated Road / Imperial Highway (SR-90) (#3)</b> – Although the intersection is anticipated to operate at acceptable LOS under Horizon Year traffic conditions, there are committed improvements at this intersection which include the addition of a fourth eastbound through lane. In comparison to the Yorba Linda Town Center Specific Plan traffic study, all of the previously identified committed improvements have since been constructed, with the exception of the 4th eastbound through lane.</p> <p>MM 5.6-8 <b>Kraemer Boulevard / Imperial Highway (SR-90) (#5)</b> – Although the intersection is anticipated to operate at acceptable LOS under Horizon Year traffic conditions, there are committed improvements</p>	

Environmental Impact	Mitigation Measure(s)	Residual Impact
	<p>at this intersection which include restriping to accommodate a third northbound through lane and the addition of a westbound right turn lane.</p> <p><b>MM 5.6-9 Imperial Highway (SR-90) / Bastanchury Road (#10)</b> – Although the intersection is anticipated to operate at acceptable LOS under Horizon Year traffic conditions, there are committed improvements at this intersection which include the addition of a second westbound through lane.</p> <p><b>MM 5.6-10 Imperial Highway (SR-90) / Yorba Linda Boulevard (#15)</b> – The intersection is anticipated to operate at unacceptable LOS with the addition of a third westbound through lane, which is currently under construction (anticipated completed in April 2015). However, long-range committed improvements at this intersection also include the addition of a second eastbound left turn lane and a second westbound left turn lane. The intersection is anticipated to operate at acceptable LOS during the peak hours with the addition of the committed long-range improvements.</p> <p><b>MM 5.6-11 Lakeview Avenue / Bastanchury Road (#23)</b> – Although the intersection is anticipated to operate at acceptable LOS under Horizon Year traffic conditions, there are committed improvements at this intersection which include the addition of a second southbound through lane. In comparison to the Yorba Linda Town Center Specific Plan traffic study, all of the previously identified committed improvements have since been constructed, with the exception of the second southbound through lane.</p> <p><b>MM 5.6-12 Lakeview Avenue / Yorba Linda Boulevard (#27)</b> – The intersection is anticipated to operate at acceptable LOS with the addition of a second northbound left turn lane and second southbound left turn lane, which are currently under construction (anticipated completed in April 2015). However, long-range committed improvements at this intersection also include the addition of a second eastbound left turn lane and a second westbound left turn lane. The intersection is anticipated to operate at acceptable LOS during the peak hours with the addition of the committed long-range improvements.</p> <p><b>MM 5.6-13 Lakeview Avenue / Oriente Drive (#24)</b> – The intersection is anticipated to operate at unacceptable LOS under long-range traffic</p>	

Environmental Impact	Mitigation Measure(s)	Residual Impact
<p>Cumulative</p> <p>The following additional study area intersection is anticipated to operate at unacceptable LOS, in addition to those previously identified under Existing traffic conditions:</p> <ul style="list-style-type: none"> <li>15 Imperial Highway (SR-90) / Yorba Linda Boulevard – LOS E AM and PM peak hours</li> <li>24 Lakeview Avenue / Oriente Drive – LOS E AM and PM peak hours</li> </ul>	<p>conditions. Although there are no committed improvements funded through the CIP at this intersection, the General Plan improvements at this intersection call for signalization and widening of Lakeview Avenue as a four-lane divided roadway. The traffic signal at this intersection is anticipated to be warranted under Horizon Year Without Project traffic conditions. As such, the intersection has been evaluated with the installation of a traffic signal, a northbound left turn lane, a second northbound through lane, a southbound left turn lane, and a second southbound through lane.</p> <p><b>MM 5.6-14 Imperial Highway (SR-90) / La Palma Avenue (#3)</b> – The intersection is anticipated to continue operate at unacceptable LOS under long-range traffic conditions. The City of Anaheim has indicated that the intersection is currently built to its ultimate and there are no future plans to widen and improve this intersection. As such, additional improvements have been evaluated at this intersection, consistent with the methodology from the Yorba Linda Town Center Specific Plan Traffic Impact Analysis.</p> <p><b>MM 5.6-15</b> Project to contribute on a fair share basis towards the installation of a traffic signal to improve the existing deficiency at Lakeview Avenue/Buena Vista Avenue.</p> <p><b>MM 5.6-16</b> Project to contribute on a fair share basis towards the installation of a traffic signal to improve the existing deficiency at Lakeview Avenue/Oriente Drive.</p>	<p>Cumulative: Impacts would remain significant and unavoidable at the intersection of Imperial Highway/La Palma Avenue (City of Anaheim). With implementation of mitigation measures, impacts to Imperial Highway (SR-90)/Yorba Linda Boulevard and Lakeview Avenue/Oriente Avenue would be less than significant.</p>

## 2. Project Description

### 2.1 Introduction

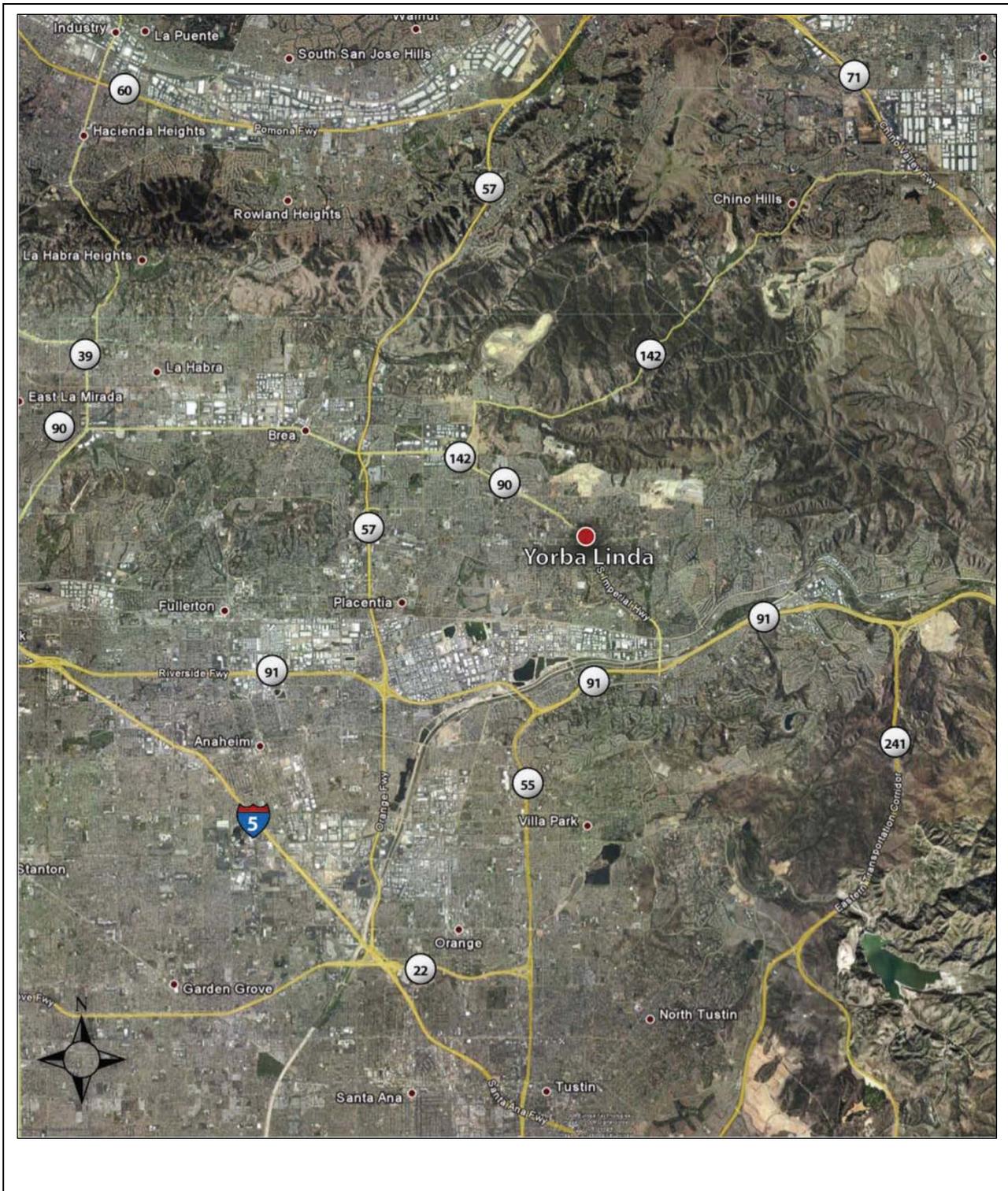
The purpose of the Project Description is to describe the Project in a way that will be meaningful to the public, reviewing agencies, and decision makers. For this Environmental Impact Report (EIR), the project description will focus on Project-level information pertaining to the Yorba Linda Town Center proposal. As described in §15124 of the California Environmental Quality Act (CEQA) Guidelines, the Project Description in an EIR is required to contain the following information:

1) the location of the proposed project; 2) a statement of project objectives; 3) a general description of the project's technical, economic, and environmental characteristics; and 4) a statement briefly describing the intended uses of the EIR. The CEQA Guidelines state that a Project Description need not be exhaustive, but should provide the level of detail needed for the evaluation and review of potential environmental impacts.

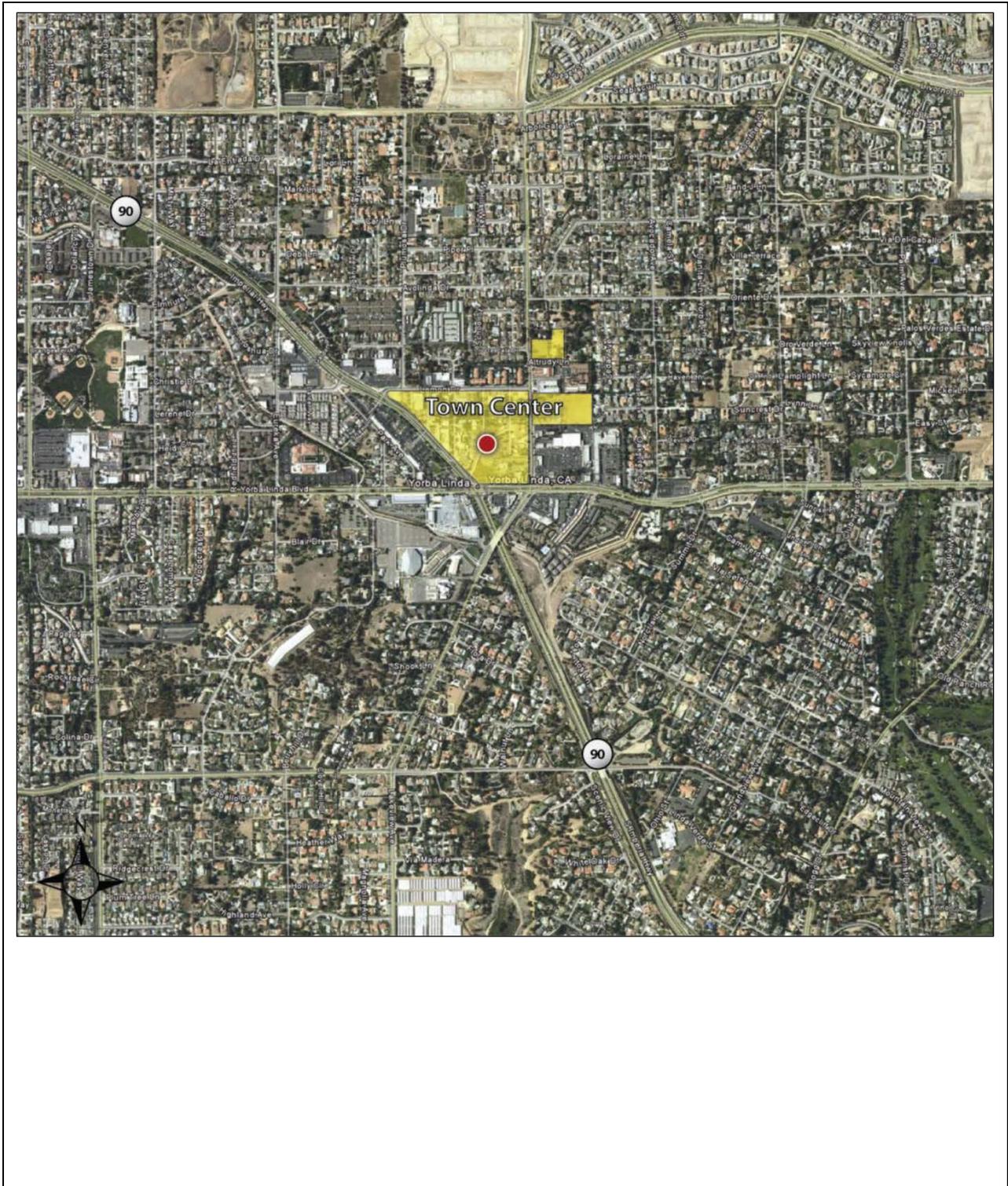
The Project Description is the starting point for all environmental analysis required by the CEQA Guidelines. Section 15146 of the CEQA Guidelines states that the degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity, which is described in the EIR. In this case, the Proposed Project consists of a modification to a previously approved Specific Plan and a site-specific development plan. The following Project Description serves as the basis for the environmental analysis contained in this draft Subsequent EIR.

### 2.2 Project Location and Site Characteristics

The City of Yorba Linda is located in northeast Orange County, California, approximately 38 miles southeast of Los Angeles (**Figure 2-1, Regional Vicinity Map**). The Yorba Linda Town Center Project area is located in the western portion of the City, on the east side of Imperial Highway (**Figure 2-2, Project Area Vicinity Map**). The Yorba Linda Town Center Project is a proposed private retail commercial development located on approximately 11.22 acres (not including right of way dedication) within the Yorba Linda Town Center Specific Plan Area, east of the Historic Town Center District. Bordered by Imperial Highway, Yorba Linda Boulevard, and Lakeview Avenue, existing public roads through the site will be realigned and vacated per the Mobility & Circulation Chapter 5 of the Specific Plan.



**Figure 2-1**  
**Regional Vicinity Map**



**Figure 2-2**  
**Project Area Vicinity Map**

### 2.3 Statement of Project Objectives

- Create an upscale dining and shopping destination to serve local area residents, businesses, and visitors.
- In keeping with the Town Center Specific Plan vision, deliver a well-designed and architecturally pleasing commercial center that offers new and exciting tenants in a welcoming environment.
- Develop a project that serves as a community gathering space, and one that enhances surrounding uses and businesses.
- In keeping with the Town Center vision, create a pedestrian-friendly shopping and dining experience, as well as provide efficient on-site and off-site traffic circulation so that customers can easily and safely access the Project.
- Open the project in calendar year 2016 to capture key retail and restaurant users, and deliver the community a project that has been considered for many years.

### 2.4 Site Background and Existing Conditions

In 2011, the Yorba Linda Town Center Specific Plan was approved for a 31-acre site of which the proposed 11.22-acre Project Site is a part. The focal point of the 31-acre study area was Main Street, which runs north and south between Imperial Highway and Lemon Drive. The study area also included the library to the west and public/institutional and residential uses to the east. The Specific Plan included three main areas in the Town Center study area. The first is Main Street, which is characterized by several older buildings that are of architectural merit. Streetscape improvements implemented over the years have created a pedestrian atmosphere. Ground floor tenant space of the existing buildings on Main Street houses a mix of retail and office uses. To the west of Main Street is the second area, which is dominated by the Yorba Linda Public Library, which was built several years ago and has reached capacity. The Specific Plan provided for the expansion of the library in the existing location and/or relocation within the proposed Civic/Cultural Arts and Public Facilities District. To the east of Main Street is the third area, which consists of several single-family residences, a church, a fire station, and vacant properties. Existing commercial uses at the northwest corner of Lakeview Avenue and Yorba Linda Boulevard include an office building and a restaurant.

Existing surrounding uses include commercial and retail uses to the south and west; retail, office and residential uses to the north; and commercial, retail, and residential uses to the east.

The General Plan land use designation for the Project area is Area Plan – Community Core. The adoption of the proposed Specific Plan is consistent with the City's General Plan, which anticipates use of a regulatory Specific Plan as a tool to implement General Plan goals for the Community Core/Downtown Historical District.

## 2.5 Description of Proposed Project

To facilitate development of the Proposed Project, certain amendments to the Town Center Specific Plan<sup>3</sup> land use districts are proposed, as reflected in the following section. Also included among proposed revisions to the Specific Plan is an extension of New Street “A” easterly through the retail center site to Valencia Avenue. Additionally, three existing residential buildings that previously have been determined eligible for local historic designation are proposed to be relocated. Five potential relocation sites have been identified, as further discussed in the following section.

The Project will consist of 1- and 2-story structures organized around a central open space (“commons”) and a strong distributed pedestrian network. Proposed uses include retail, restaurants, cinema, and supermarket totaling approximately 125,345 to 149,295 square feet (maximum) of gross leasable area (GLA). The existing 2-story office building within the Project area will remain. Parking will be provided by a combination of a public parking structure located to the north of the commons area and surface parking distributed across the site, achieving a ratio of approximately 5.7 to 4.8 stalls per 1,000 square feet of GLA, as reflected in **Table 2-1**.

**Table 2-1 Land Use Summary**

<b>Summary</b>	
Gross site area	±8.4 ac
<b>Building Area</b>	
Theater	49,500-59,400 sf
Existing office	11,080 sf
Market	26,400-35,000 sf
Shops 1	7,800 sf
Shops 2	5,400 sf
Pad 1	6,500 sf
Pad 2	5,200 sf
Pad 3	4,000 sf
Pad 4	5,300 sf
Existing pad	4,165 sf
Optional	0-5,000 sf
Gross building area	125,345-149,295 sf
<b>Parking Provided</b>	
Parking structure	±382 cars
Street level	±336 cars
Total parking provided	718 cars
Parking ratio	5.7-4.8 per 1,000 sf

Notes:

- Includes existing office building area
- 4-level parking structure

3 Yorba Linda Town Center Specific Plan can be found at the following link: <http://ci.yorba-linda.ca.us/index.php/city-departments/community-development?id=577:yorba-linda-town-center-specific-plan-final&catid=1>

## Required Changes to Town Center Specific Plan (TCSP) – Yorba Linda Town Center Project

### 1. Town Center Land Use District Boundary Revisions

Land Use District (as approved in TCSP)	Proposed Change
1 – Historic Town Center (6.3 acres)	No change to boundaries
2 – Town Center Commercial (9.8 acres)	Extend easterly portion of Town Center Commercial District northerly to encompass larger footprint of proposed retail center, resulting in a revised acreage of approximately 15.6 acres for Town Center Commercial District. This proposed change results in a commensurate reduction in the Civic/Cultural Arts and Public Facilities District, and elimination of the Cottage District.
3 – Civic/Cultural Arts and Public Facilities District (5.1 acres)	Reduce Civic/Cultural Arts and Public Facilities District to account for larger footprint for proposed retail center, resulting in a revised acreage of approximately 1.8 acres for Civic/Cultural Arts and Public Facilities District.
4 – Cottage District (2.5 acres)	Eliminate District – convert area to Town Center Commercial District.
5 – Multi-family (7.3 acres)	No change to boundaries

### 2. Town Center Specific Plan Allowable Land Uses Revisions

Land Use District	Proposed Change
1 - Historic Town Center	Modify <i>Office, business/professional</i> to allow office use on ground floor on Olinda Street only, with the approval of a conditional use permit.
2 – Town Center Commercial	Modify line item <i>Supermarket (20K sf maximum)</i> in Allowable Uses column to read <i>Supermarket (35K sf maximum)</i> . Keep as a conditionally permitted use within Town Center Commercial District.
3 - Civic/Cultural Arts and Public Facilities District	No change to allowable uses.
4 – Cottage District	Delete District.
5 – Multi-family (7.3 acres)	Add <i>Library/museum, public</i> as a conditionally permitted use.

### 3. Cottage Relocation Options

Consistent with the mitigation approach described in the “Historical Resources CEQA Impacts Analysis for 4842, 4852 and 4871 School Street by PCR Services,” dated November 5, 2013, two of the three cottages that were assigned a historic resource status code of 5S3 during the 2009 Citywide Historic Property Survey would need to be relocated to mitigate removal from their existing locations. Although the specific sites for relocation of these structures have yet to be confirmed, the City preliminarily has identified three potential relocation options for analysis in the Subsequent EIR.

1. **Option 1 (Library Site)** – Relocate two cottages (i.e., 4842 and 4871 School Street) to the 4.7-acre property on the east side of Lakeview Avenue, within the Multi-Family District. The site is a City-owned property, and with the proposed change to the Allowable Land Uses Table, a public library use (including ancillary facilities) would be conditionally permitted. The cottages, if relocated to this site, could be utilized for residential purposes or as an ancillary use to a future public library.

2. **Option 2 (Altrudy Site)** – Relocate two cottages (i.e., 4842 and 4871 School Street) to the approximate 2.6-acre City-owned multi-family residential property for residential use. Relocation of the cottages could be included as a part of any future residential development project proposal.
3. **Option 3: Olinda Street Site** – The Olinda Street Site is a public parking lot located on the east side of Olinda Street mid-block between Lemon Drive and Imperial Highway. The Olinda Street Site appears to be compatible for the relocation of the three cottages. Located approximately 0.10 mile to the northwest or one block, the Olinda Street Site is located within an historic district and is compatible with the original character of the historical cottages.
4. **Option 4: 4861-4871 School Street Site** – The fourth option for the location for two of the cottages is the 4861-4871 School Street Site. This site includes two parcels and is improved with the Craftsman style cottage at 4871 School Street, in addition to adjoining another vacant City-owned property with the address of 4861 School Street. The residence at 4861 School Street previously was demolished, and was not considered an historic resource.

However, the 4861-4871 School Street Site can only accommodate the relocation of two cottages because the total square footage of the site is much smaller than the other three site options. 4871 School Street would remain on its lot, and only one of the other two cottages, either 4842 or 4852 School Street, would be relocated to the second parcel. The City proposes to re-grade the site, re-orienting the existing 4871 cottage to face south (along New Street “A”), and then moving one additional cottage (either 4852 or 4842 School Street) to the site, oriented to front New Street “A.” The two cottages could then be used for commercial office or residential use.

5. **Option 5: Relocation to an Undefined Location** – The final option is relocation to an undefined location based upon the preferences of the interested acquisition party. This other site could be located within the City or in a neighboring community. The compatibility of the site would need to be analyzed at the time of acquisition to ensure the undefined location would be compatible to the historical character of the cottages. It would be preferable if the site was located within the City and within a single-family residential area developed during the 1920s.

#### 4. Requested Land Use Entitlements

1. **Zone Change 2013-01** – to modify certain aspects of the TCSP to accommodate refinements to Land Use District boundaries and allowable uses.
2. **Design Review 2013-18** – for the site planning and architectural design of a new 128,238- to 151,738-square-foot (maximum) commercial-retail/restaurant/entertainment

destination center with a movie theater (containing 11 screens and 1,083 seats) and specialty market as anchor tenants, 3 sit-down restaurant pads and 1 commercial-retail pads, 2 shops buildings, an existing office building, a 4-level parking structure, and surface parking lots, arranged in a campus surrounding a central “commons” area.

3. **Tentative Parcel Map 2013** – for consolidation of the properties currently comprising the site into 1 or more lots.
4. **Conditional Use Permit 2013-29** – for approval of certain uses that are subject to conditional use permit approval pursuant to the TCSP development standards/ allowable land uses table, including the proposed movie theater and market; and for participation in the parking in-lieu program.

**Figure 2-3, Yorba Linda Town Center Site Plan** provides a site plan orientation of the Proposed Project.

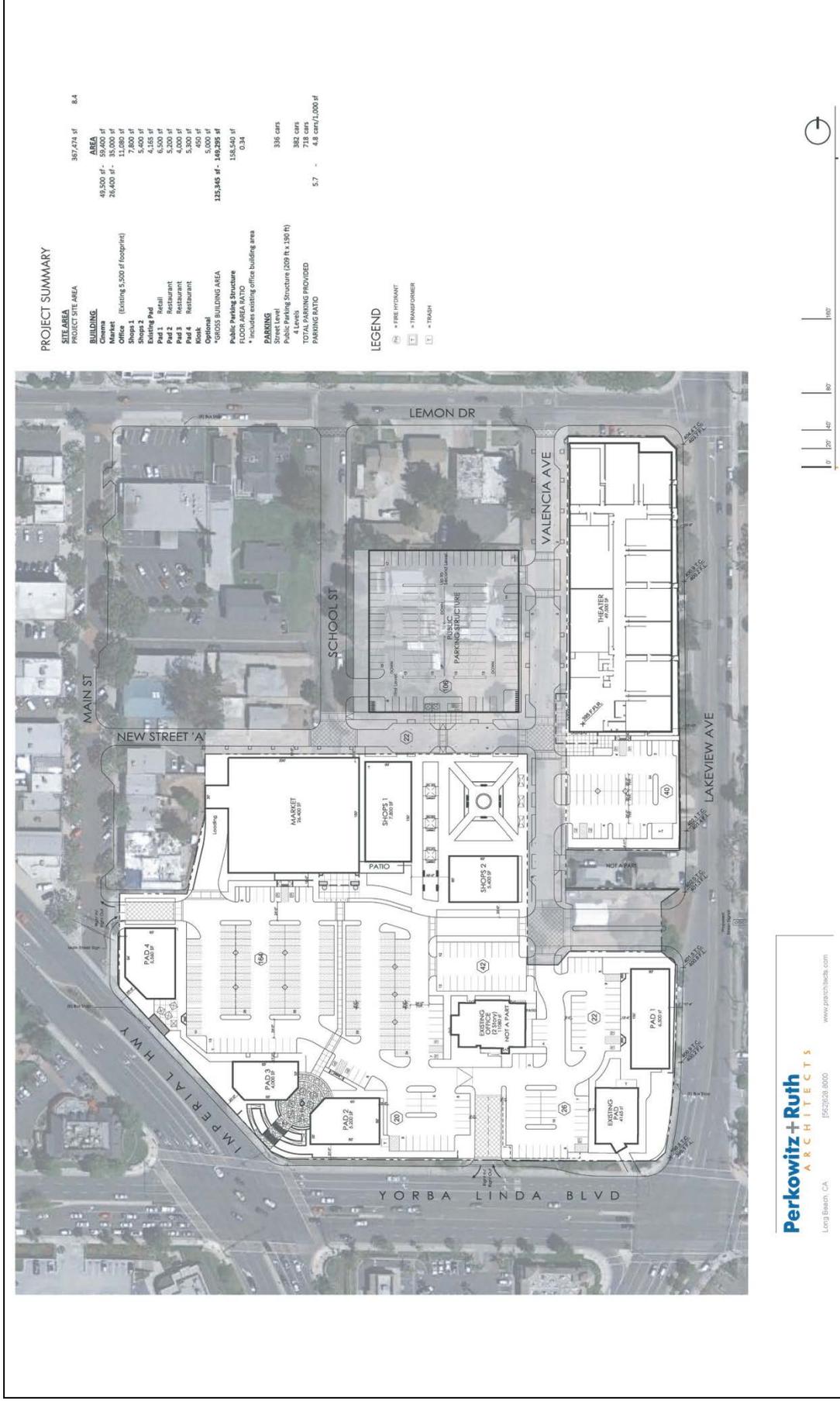
### Retail Shops

The intent of the Town Center Project is to provide uses that are needed within the community and to allow for an informal open space gathering place for people to rest, relax, and enjoy the proposed uses. As discussed above, the Project proposes 1- and 2-story buildings. Exterior materials and finish include smooth plaster, light stone, brick veneer, precast cornice, stone veneer, metal canopies, fabric awnings, and wood trellises. The architectural elevations depict clean lines and soft muted colors to promote an approachable and inviting gathering place. Notes on the architectural plans indicate that no building or structure shall exceed a maximum height of 35 feet, measured from the lowest point on the exterior of the structure at ground level to the highest point on the structure.

**Figure 2-4, Illustrative View from Imperial Boulevard; Figure 2-5, Illustrative View from the Commons; Figure 2-6, Illustrative View towards Market and Shops; and Figure 2-7, Illustrative View towards the Commons** all depict the 1- and 2-story shops with a common open area with seating, tables, and shade coverings.

### Cinema/Theatre

A 49,500- to 59,400-square-foot theatre is proposed on the site that currently houses the vacant single-family dwelling units and is currently designated as Cottage District in the Specific Plan. To allow this use in the location proposed, the Specific Plan would be amended to eliminate the Cottage District and to convert the area to Town Center Commercial District. The architecture of the theatre will complement the retail shops and will consist of the same materials. The cinema/theatre is depicted in **Figure 2-8, Cinema West Elevations; Figure 2-9, Cinema North and South Elevations;** and **Figure 2-10, Cinema East Elevations.**



**Figure 2-3**  
**Yorba Linda Town Center Site Plan**



**Figure 2-4**  
**Illustrative View from Imperial Boulevard**



**Figure 2-5**  
**Illustrative View from the Commons**



**Figure 2-6**  
**Illustrative View towards Market and Shops**



**Figure 2-7**  
**Illustrative View towards the Commons**



**Figure 2-8**  
Cinema West Elevations



**Figure 2-9**  
**Cinema North and South Elevations**

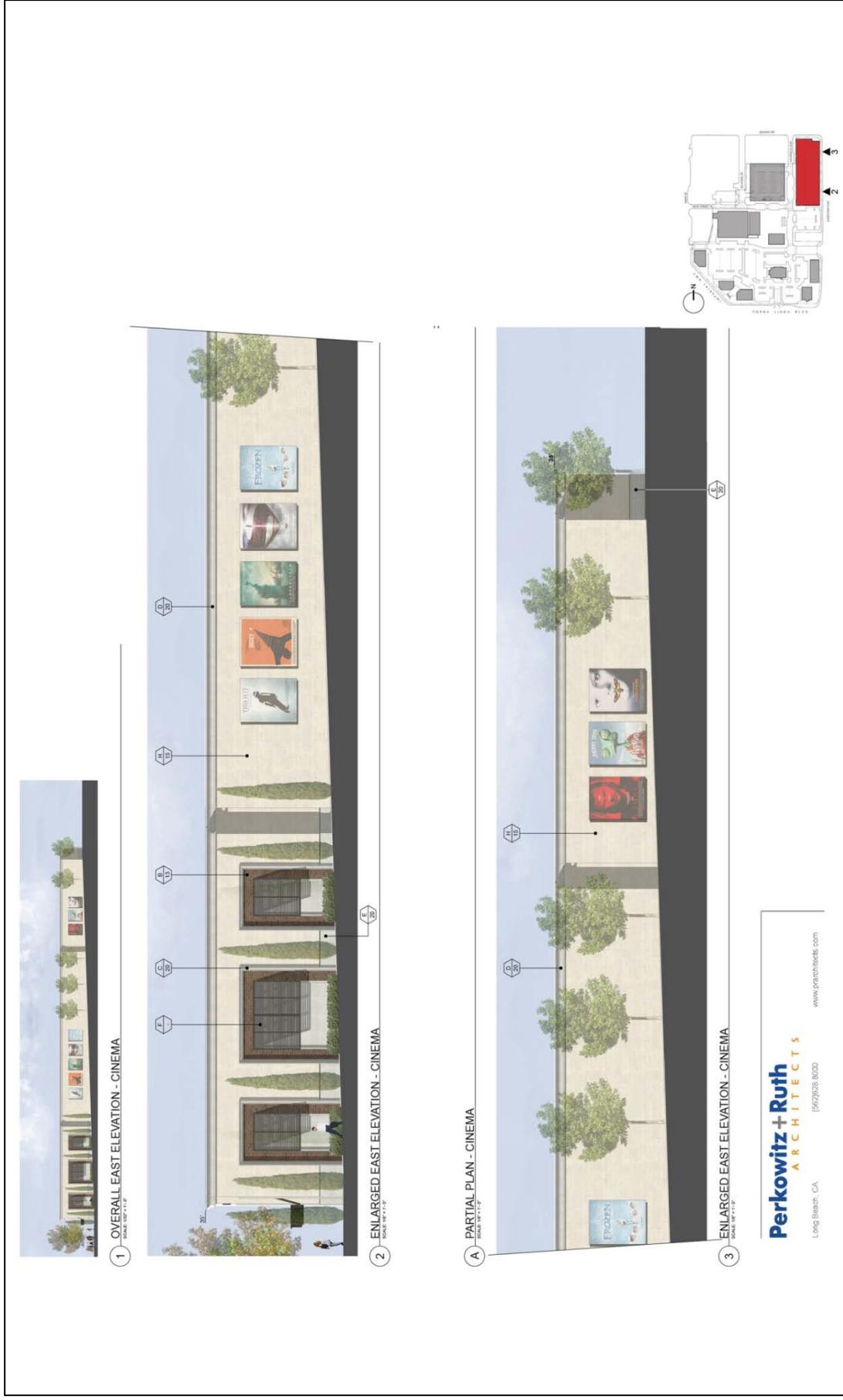


Figure 2-10  
Cinema East Elevations

## Parking Structure

The parking structure is designed for an estimated 382 cars. **Figure 2-11** depicts the parking structure south and east elevations. **Figure 2-12** depicts the north and west elevations of the parking structure. Although not necessary to meet parking requirements for the Project, the parking structure will provide parking for the Proposed Project and greater Town Center area. With the inclusion of street-level parking the Project and the parking structure would provide a total of 718 parking spaces. Additional public parking for the TCSP area will be provided within the structure to satisfy additional parking demands within the overall TCSP area.

## Specialty Grocery Store

The specialty grocery store would have an area of 26,400 to 35,000 square feet of floor area. The proposed grocery store is anticipated to be a “higher end” store. **Figure 2-13, Market Elevations**, depicts the architectural detail for the proposed market. The market will have the same architectural detail as the retail shops and the cinema/theatre.

## Landscaping

The landscaping plan proposes a variety of plant scape for the Project Site. A partial plant palette includes the Hong Kong Orchid Tree, Chinese Fringe Tree, Italian Cypress, Southern Magnolia, California Sycamore, Callery Pear, Brisbane Box Tree, Date Palm, Mexican Fan Palm, Foxtail Agave, Boxwood, Variegated Flax Lily, Katrina American Iris, Pink Escallonia, Evergreen Day Lil, Dwarf Mat Rush, New Zealand Flax, India Hawthorne, White Shrub Rose, Red Groundcover Carpet Rose, and Mexican Bush Sage. The Proposed Project would remove 85 trees and preserve 25 trees.

## Signage and Lighting

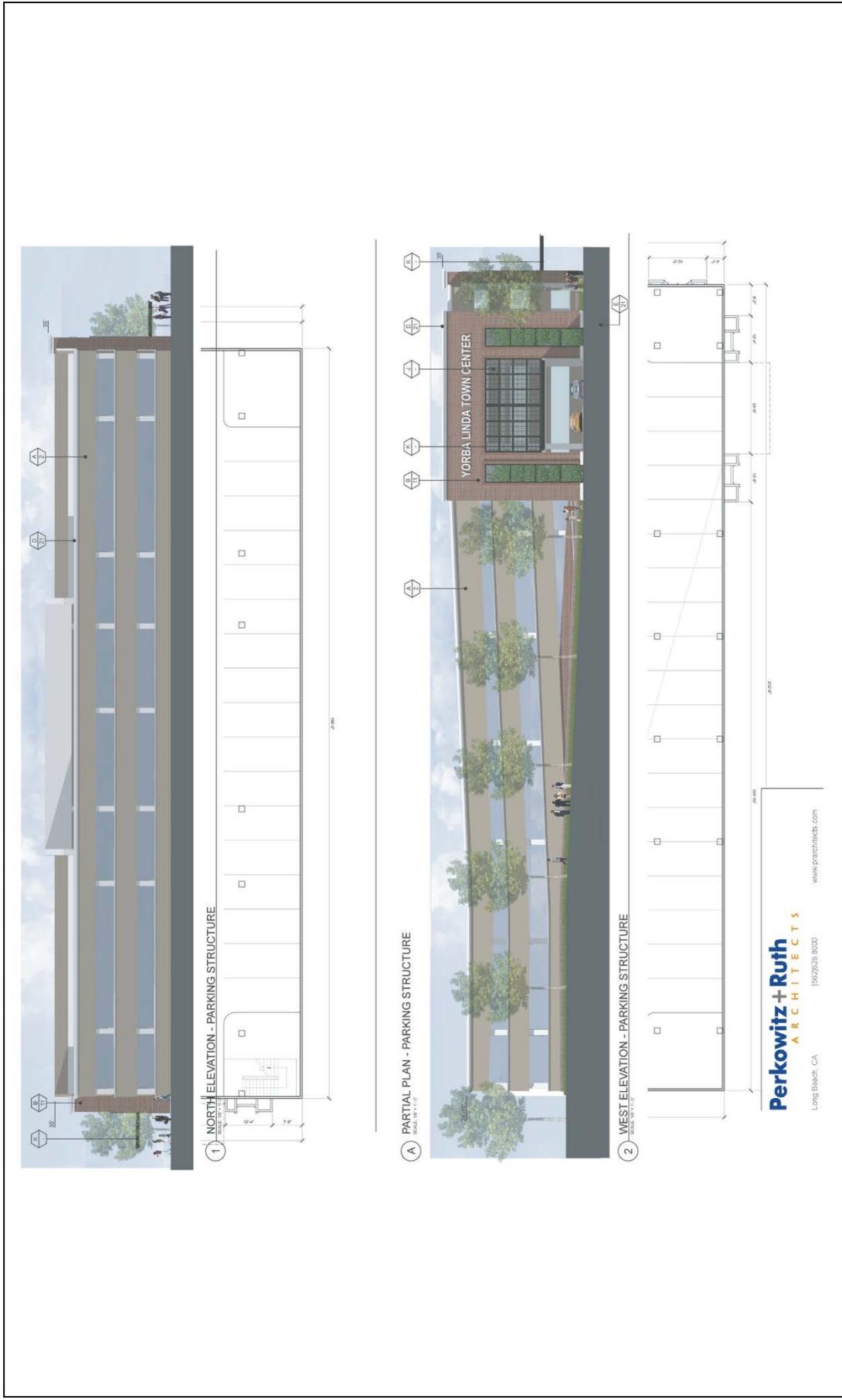
Signage and lighting for the Proposed Project would be consistent with that of the approved Town Center Specific Plan. No changes to the Specific Plan are proposed for signage and lighting.

## Access and Circulation

The Project Site Plan proposes access on Imperial Highway (SR-90) (via Main Street), Yorba Linda Boulevard (via Driveway 2), Lemon Drive (via Main Street, School Street, and Valencia Avenue), and Lakeview Avenue (via Driveway 3). All Project access points are assumed to allow full-access turning movements, with the exception of Main Street at Driveway 1 (right-in/right-out access only) and Driveway 2. Driveway 2 currently allows for full turning movements (e.g., no turn restrictions).



**Figure 2-11**  
**Parking Structure South and East Elevations**



**Figure 2-12**  
**Parking Structure North and West Elevations**



Figure 2-13  
Market Elevations

It is proposed that Driveway 2 would continue to allow for full turning movements under Opening Year Cumulative traffic conditions and then would be restricted to right-in/right-out access only under Horizon Year traffic conditions when Yorba Linda Boulevard is improved to its ultimate roadway classification. Roadway improvements necessary to provide site access and on-site circulation are assumed to be constructed in conjunction with site development and are described below. These improvements are required to be in place prior to occupancy.

## Grading

### Demolition/Site Clearing

The Project would require demolition, site clearing, and potential relocation of existing uses on the Project Site. Specifically, two of three existing cottages were assigned a historic resource status code and could be relocated from their existing locations. In addition to the removal/relocation of these uses, demolition would include the removal of asphalt, concrete, other ancillary structures, trees, fences, and other existing debris. This analysis estimates up to approximately 3,500 tons of debris would be demolished from the site over approximately 13 construction days.

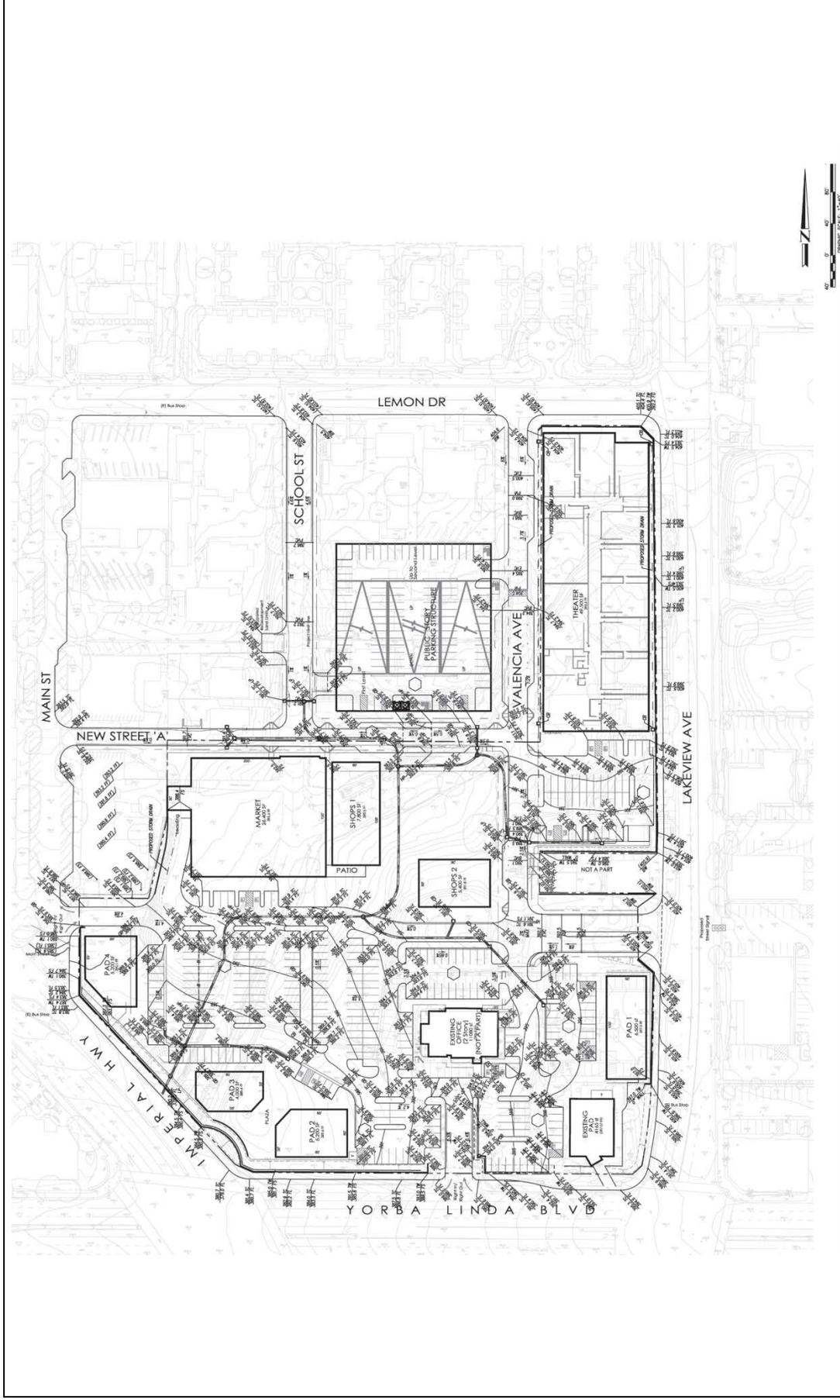
### Grading/Soil Import/Foundation

After the completion of demolition/site clearing, grading, soil import and foundation preparation activities would occur for approximately 1 to 2 months and would involve the cut and fill of land to ensure the proper base and slope for the building pads and foundations.

With respect to soil import, it is estimated the Project would require approximately 100,000 cubic yards (cy) of soil import to balance the site. This activity is anticipated to generate a maximum of 200 truck-loads per day (or 200 round trips, 400 one-way trips). Under the assumption each truck load would carry approximately 16 cy of soil, approximately 3,200 cy of soil import would occur per day for approximately 31 construction days, resulting in 100,000 cy of total soil import. The following two potential haul routes have been identified for the import of materials to the site:

1. Southbound SR-57 to southbound Imperial Highway (SR-90) to Lemon Drive to Lakeview Avenue to Project Site;
2. Westbound SR-91 to northbound Imperial Highway (SR-90) to Yorba Linda Boulevard to Lakeview Avenue to Project Site.

Trucks from southbound Imperial Highway (SR-90) are expected to enter and exit the site via Lemon Drive and Lakeview Avenue. Trucks from northbound Imperial Highway (SR-90) are expected to enter and exit the site via Yorba Linda Boulevard and Lakeview Avenue. See **Figure 2-14, Conceptual Grading Plan**



**Figure 2-14**  
**Conceptual Grading Plan**

## 2.6 Intended Use of the Subsequent EIR

This EIR will serve as the primary source of environmental information for the actions and approvals associated with the Yorba Linda Town Center. In accordance with §21002.1 of the CEQA Guidelines, the purpose of this EIR is to provide the City, serving as the lead agency, information on the potentially significant environmental impacts that would result from modifications to the Town Center Specific Plan, alternatives to the Town Center Specific Plan, and mitigation measures that may reduce or avoid any significant effects. This EIR will also be used as an information document by other public agencies in connection with any approvals or permits necessary for construction and operation of the Yorba Linda Town Center.

Discretionary approvals would include, but are not limited to the following:

- **Zone Change** – Modify the Yorba Linda Town Center Specific Plan (Specific Plan – Town Center (SP-TC)) to reflect proposed site plan and use modifications.
- **Conditional Use Permit 2013-29** – for approval of certain uses that are subject to conditional use permit approval pursuant to the TCSP development standards/ allowable land uses table, including the proposed movie theater and market; and for participation in the parking in-lieu program.
- **Design Review 2013-18** – for the architectural review of the Proposed Project.
- **Tentative Parcel Map 2013** – for consolidation of the properties currently comprising the site into one or more commercial lots.

This EIR is intended to serve as a Subsequent EIR, as defined in §15162 of the CEQA Guidelines, for use by the City as lead agency and by responsible agencies as needed. The Subsequent EIR is used when an EIR has been previously certified but substantial project changes have been proposed that will require major revisions of the previous EIR.

## 3. Environmental Setting

### 3.1 Introduction

The purpose of this section is to inform decision-makers and the public of the type and magnitude of change to the existing environment that would be caused by the Proposed Project, and proposed and approved cumulative development in the City of Yorba Linda. Individual environmental topics addressed in this draft Subsequent Environmental Impact Report (EIR) have been identified in the Notice of Preparation prepared by the Agency for the Proposed Project. The environmental impact analysis sections of this Draft EIR provide a comprehensive discussion of the existing local and regional environmental conditions, evaluate expected project level and cumulative level impacts that would result from the project, and determine the level of significance of reasonably foreseeable impacts. The environmental impact analysis sections identify mitigation measures intended to reduce potential environmental impacts to the greatest extent feasible.

### 3.2 Regional Environmental Setting

#### 3.2-1 Regional Location

The proposed Yorba Linda Town Center Project is located in the northeastern portion of Orange County, within the City of Yorba Linda (City). The City of Yorba Linda is roughly located north of State Route 91 (SR-91) and east of SR-57, approximately 38 miles southeast of Los Angeles, as shown in **Figure 2-1, Regional Vicinity Map** (page 2-2).

#### 3.2-2 Local Setting

As illustrated in **Figure 2-2, Project Area Vicinity Map** (page 2-3, the approximately 11.22 acres (not including right of way dedication) is located within the Yorba Linda Town Center Specific Plan Area, east of the Historic Town Center District and is bordered by Imperial Highway, Yorba Linda Boulevard and Lakeview Avenue. The Project Site is located in the heart of the City of Yorba Linda. The Nixon Library is located farther west of the Project Site, residential land uses are located north and northeast of the Project Site, and commercial land uses to the west, south, and southeast of the Project Site.

#### Acronyms used in this section:

ASL	above sea level
bgs	below ground surface
BRC	Blue Ribbon Committee
CEQA	California Environmental Quality Act
DOGGR	California Dept. of Conservation Division of Oil, Gas, and Geothermal Resources
EIR	Environmental Impact Report
HFC	fluorohydrocarbons
LULUCF	Land-Use, Land-Use Change and Forestry
OCTA	Orange County Transportation Authority
PFC	perfluorocarbons
PYLUSD	Placentia-Yorba Linda Unified School District
RCP	Regional Comprehensive Plan
SCAG	Southern California Association of Governments
SoCAB	South Coast Air Basin
TCSP	Town Center Specific Plan

### 3.2-3 Local Plans and Policies

#### 1. City of Yorba Linda General Plan

Development in the City is subject to the City's General Plan. The State of California mandates that every city and county prepare a general plan. A general plan is a comprehensive policy document outlining the type and capacity of future development in a city or county. This policy statement is divided into eight chapters, including an introduction and seven elements: Land Use, Circulation, Recreation and Resources, Historic Resources, Noise, Public Safety, and Growth Management. The Land Use Element has the broadest scope of all the General Plan Elements. The Land Use Element establishes the pattern of land use in the City and sets standards and guidelines to regulate development.

#### Area Plan-Community Core

The General Plan designation for the Project Site is Area Plan-Community Core.

#### Community Core/Downtown Historical District Area Plan

The Community Core/Downtown Historical District Opportunity Area(s) is treated as a unique designation within the General Plan. As stated in the Community Core/Downtown Historical District Area Plan, the entire 141.6 acres is designated as Area Plan and a Specific Plan would be required as a condition of the Area plan designation of the General Plan. The specific land uses, residential densities, permitted uses, design considerations, standards and guidelines, and circulation improvements for the Community Core will be established by the Specific Plan. The Specific Plan will contain requirements and conditions to resolve potential conflicts between the Community Core land uses and residential uses adjacent to, and internal within, the Community Core. Within the Community Core designation, there are three subareas for which specific policies and implementation measures apply, which will be expanded in the specific plan prepared to implement the General Plan. These subareas include the Downtown Historical District, Community Commercial District, and Core Residential District. The Yorba Linda Specific Plan project (of which the Town Center Project is a part) was adopted to satisfy the Specific Plan requirement noted above and is located within the Downtown Historical District.

#### 2. Yorba Linda Town Center Specific Plan

The Proposed Project is a part of the Yorba Linda Town Center Specific Plan area. The Yorba Linda Town Center Specific Plan provides for five distinct planning areas within the 31-acre planning area. (As discussed above the Proposed Project is comprised of 11.22 acres within the total 31-acre planning area). As discussed in **Section 2, Project Description**, the Proposed Project would modify the Yorba Linda Town Center Specific Plan areas as follows:

### Required Changes to Town Center Specific Plan (TCSP) – Yorba Linda Town Center Project – Town Center Land Use District Boundary Revisions

Land Use District (as approved in TCSP)	Proposed Change
1 – Historic Town Center (6.3 acres)	No change to boundaries
2 – Town Center Commercial (9.8 acres)	Extend easterly portion of Town Center Commercial District northerly to encompass larger footprint of proposed retail center, resulting in a revised acreage of approximately 15.6 acres for Town Center Commercial District. This proposed change results in a commensurate reduction in the Civic/Cultural Arts and Public Facilities District, and elimination of the Cottage District.
3 – Civic/Cultural Arts and Public Facilities District (5.1 acres)	Reduce Civic/Cultural Arts and Public Facilities District to account for larger footprint for proposed retail center, resulting in a revised acreage of approximately 1.8 acres for Civic/Cultural Arts and Public Facilities District.
4 – Cottage District (2.5 acres)	Eliminate District – convert area to Town Center Commercial District.
5 – Multi-family (7.3 acres)	No change to boundaries

### 3. Downtown Master Plan

The Downtown Master Plan was studied in two phases. The first phase study area was for the Old Town, the heart of the downtown including Main Street and its immediate environs (which includes the Specific Plan area). The second phase study area was for the parcels surrounding the Old Town that were likely for future development (outside of the Specific Plan area). The Master Plan is meant to be a vision for the future, not a final ordinance. It is a guideline for future decision making by the City when reviewing individual projects. The plan is a general framework for the direction of future development but not final recommendations on individual sites.

### 4. Blue Ribbon Committee

The Blue Ribbon Committee (BRC) was established by the City Council and is an ad hoc, single purpose 24-member citizen’s advisory group. The focus of the BRC was charged with obtaining and providing additional public input as to what the Yorba Linda community would like to see included in the Specific Plan project. The BRC was responsible for packaging its findings into a set of conceptual recommendations and guiding principles for consideration by the City Council. The Yorba Linda Town Center Blue Ribbon Committee Report is the result of those efforts. This report identified input received from the residents of Yorba Linda and provided the following recommendations to the City Council.

- The preparation of a community-based Specific Plan for the Town Center that is consistent with all the Guiding Principles and Recommendations for the Priority Topics in the BRC report.
- The City Council consider including a quantitative, statistically valid survey to gauge the Yorba Linda community’s preferences and priorities related to the Specific Plan.

- Recommends that the City Council form a Yorba Linda Town Center Specific Plan Citizens Advisory Committee to uphold the BRC recommendations supported by the City Council throughout all phases of the Specific Plan process and provide policy recommendations that support the community's vision for the Town Center.

### **3.2-4 Regional Plans and Policies**

#### **Southern California Association of Governments**

The Southern California Association of Governments (SCAG) is a council of governments representing Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. SCAG is a regional planning agency and serves as a forum for addressing regional issues concerning transportation, the economy, community development, and the environment. Policies and programs adopted by SCAG to achieve regional objectives are expressed in its Regional Comprehensive Plan (RCP). Some of these policies are advisory in nature. SCAG also serves as the regional clearinghouse for projects requiring environmental documentation under federal and state law. In this role, SCAG reviews proposed development and infrastructure projects to analyze their impacts on regional planning programs.

### **3.2-5 Local Environmental Setting**

The Town Center Project area is located in the central portion of the City. Regional access to the site is provided by SR-91 on the south and SR-57 on the west. Local access to the site is from Yorba Linda Boulevard from both the east and west and from Imperial Highway (SR-90) from both the north and south.

#### **1. Topography**

The site is generally flat, ranging in elevation from approximately 400 feet above sea level (ASL) in the north to approximately 380 feet ASL in the south. Topography slopes downward to the west-southwest.

Groundwater levels range between 54 and 66 feet below ground surface (bgs). Based on the groundwater elevation contour map, the flow direction at the site is in a westerly direction.

#### **2. Public Services**

##### **Fire Protection**

The Orange County Fire Authority provides services to the project area including fire protection services, emergency medical services, ambulance transportation, and rescue operations. Fire Station No. 10 is located within the project area at 18422 Lemon Drive.

### Police Protection

Law enforcement and crime prevention services are provided by the Orange County Sheriff's Department. Police services include patrol, investigations, traffic enforcement, traffic control, vice and narcotics enforcement, airborne patrol, crime suppression, community policing, tourist-oriented policing, and detention facilities. The Orange County Sheriff's Department has a local facility in Yorba Linda at 20994 Yorba Linda Boulevard, approximately 3 miles east of the Project Site. The police services facility is staffed by approximately 40 employees, including an administrative deputy, an administrative sergeant, a crime prevention specialist, patrol officers, a community service officer, traffic officers, two Yorba Linda investigators, and a crime prevention specialist.<sup>4</sup>

### Schools

There are no schools located within the boundaries of the Specific Plan. The project area is within the boundaries of the Placentia-Yorba Linda Unified School District (PYLUSD). The Specific Plan is located currently within the PYLUSD attendance boundaries of Mabel Paine Elementary School to the north, Yorba Linda Middle School to the west, and Yorba Linda High School to the east of the project area. These schools would serve the project area.

### Parks

Parks within a 1-mile radius of the Project Site include Buena Vista Equestrian Center, Fairmont Knolls Park, Jessamyn West Park, and Valley View Park (Yorba Linda Middle School).

### Other Public Facilities

The Yorba Linda Public Library is located at 18181 Imperial Highway. The library houses a collection of over 140,000 books and audiovisual materials and provides a variety of services to the community.

## 3. Cultural Resources

The Specific Plan area falls within the historical downtown area. This is the traditional "downtown" area of the City. The General Plan's intent is to enhance the area as Yorba Linda's recognized downtown, a mixed-use center that is Yorba Linda's commercial, civic, and social core.

In the project area, early twentieth-century bungalow residences at 4842, 4852, and 4871 School Street potentially would be demolished. The subject properties have been identified as locally eligible historical resources with a 5S3 California Historical Resources Status Code ("Status Code") in the City's historical resources survey.<sup>1</sup> A 5S3 Status Code is defined as, "appears to be

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<sup>4</sup> Telecommunication with Sergeant Vuong, Orange County Sheriff's Department, February 24, 2015.

individually eligible for local listing or designation through survey evaluation.” Pursuant to CEQA §15064.5 these properties are considered historical resources. Please see this EIR, **Section 5.2, Cultural Resources** (beginning on page 5-35), for additional information regarding the existing historical conditions on the Project Site and within its vicinity.

#### **4. Hazards and Hazardous Materials**

According to the State of California Department of Conservation Division of Oil, Gas, and Geothermal Resources (DOGGR) maps, there are no active or abandoned oil or natural gas wells on the site. The site is located within the East Coyote Oil Field (east portion), Yorba Linda. Various sites within the Town Center Specific Plan area have been developed with a variety of uses over time. For example, the site of a former service station is located at the southeast corner of Imperial Highway and Lemon Drive and is currently undergoing contamination remediation efforts. Because the uses in the project area may have used or generated hazardous materials, a Hazardous Materials Screening (HMS) was performed. A Hazardous Materials Screening Town Center, Yorba Linda, California, dated July 1, 2010 and prepared by Ninyo & Moore Geotechnical and Environmental Sciences Consultants determined that with the implementation of mitigation measures impacts would be less than significant. This topic was fully vetted in the Yorba Linda Town Center Specific Plan EIR and will not be addressed further in the Draft Subsequent EIR.

#### **5. Air Quality**

The Specific Plan area is located within the South Coast Air Basin (SoCAB). The SoCAB is a 6,600-square mile coastal plain bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The SoCAB includes all of the non-desert portions of San Bernardino, Los Angeles, Riverside counties, and all of Orange County. Basin-wide conditions are characterized as warm summers, mild winters, infrequent rainfall, moderate onshore daytime breezes, and moderate humidity.

All seasons generally exhibit onshore flows during the day and offshore flows at night, after the land cools to below the temperature of the ocean. The likelihood of strong offshore flows, including Santa Ana winds, is greater during winter than summer.

The topography and climate of Southern California combine to produce unhealthful air quality in the SoCAB. Low temperature inversion, light winds, shallow vertical mixing, moist semi-arid climate, and extensive sunlight, in conjunction with a shallow marine layer that hinders horizontal and vertical dispersion of air pollutants, combine to create degraded quality, especially in inland valleys of the basin, including the Specific Plan area. Please see this EIR, **Section 5.1, Air Quality**, for additional information regarding the existing air quality conditions on the Project Site and within its vicinity.

## 6. Global Climate Change

Global climate change is a broader term that is used to describe any worldwide, long-term change in the earth's climate. This change could be, for example, an increase or decrease in temperatures, the start or end of an ice age, or a shift in precipitation patterns. Though global warming is characterized by rising temperatures, it can cause other climatic changes, such as a shift in the frequency and intensity of rainfall or hurricanes. Some specific, unique locations may be cooler even though the world, on average, is warmer. All of these changes fit under the term, global climate change.

Worldwide emissions of greenhouse gases in 2004 were 26.8 billion metric tons of carbon dioxide equivalent (CO<sub>2</sub>e) per year.<sup>5</sup> In 2007, the United States emitted about 7 billion metric tons of CO<sub>2</sub>e, or about 24 metric tons per capita per year. Over 80% of the GHG emissions in the United States are comprised of CO<sub>2</sub>e emissions from energy-related fossil fuel combustion.

In 2004, California emitted 0.492 billion metric tons of CO<sub>2</sub>e, or about 7% of U.S. emissions. If California were a country, it would be the 16<sup>th</sup> largest emitter of greenhouse gases in the world.<sup>6</sup> This large number is due primarily to the sheer number of people in California; compared to other states, California has one of the lowest per capita GHG emission rates in the country, which is due to California's higher energy efficiency standards, its temperate climate, and the fact that it relies on out-of-state energy generation.

In 2004, 81% of greenhouse gas emissions (in CO<sub>2</sub>e) from California were comprised of carbon dioxide emissions from fossil fuel combustion, with 4% comprised of CO<sub>2</sub> from process emissions. Methane and nitrous oxide accounted for 5.7% and 6.8% of total CO<sub>2</sub>e respectively, and high-GWP gases<sup>7</sup> accounted for 2.9% of the CO<sub>2</sub>e emissions. Transportation, including industrial and residential uses, is by far the largest end-use category of greenhouse gases in California.<sup>8</sup> Please see this EIR, **Section 5.3, Global Climate Change** (beginning on page 5-69), for additional information regarding the existing air quality conditions on the Project Site and within its vicinity.

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5 Sum of Annex I and Annex II countries, without counting Land-Use, Land-Use Change and Forestry (LULUCF). For countries that 2004 data was unavailable, the most recent year was used. This report also is available for public inspection and review at Los Angeles County Department of Regional Planning, 320 West Temple Street, Los Angeles, California 90012, and is incorporated by reference.

6 "Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004", California Energy Commission. This inventory also is available for public inspection and review at Los Angeles County Department of Regional Planning, 320 West Temple Street, Los Angeles, California 90012, and is incorporated by reference.

7 Such as HFCs (fluorohydrocarbons) and PFCs (perfluorocarbons).

8 As of 2004, fossil fuel consumption in the transportation sector was the single largest source of California's GHG emissions (41.2%), with the industrial sector as the second-largest source (22.8%), followed by electrical production from in-state and out-of-state sources (19.6%), agricultural and forestry (8.0%), and other activities (8.4%). ("Climate Action Team Report," *supra* footnote 1, pp. 9-10).

## 7. Noise

The Town Center Project area consists of a mix of commercial, office, and institutional uses with a few scattered residential uses. Additional residential uses, including senior assisted living and multi-family apartments and condominiums, occur adjacent to and within the nearby vicinity of the Town Center Specific Plan boundaries. Noise sources include highways and arterial noise sources.

Long-term noise sources result predominantly from automobile and truck noise. A fire station is currently located on Lemon Drive within the Specific Plan area. No major railroads or rail stations are located within the Specific Plan area. Noise exposure as a result of traffic is audible throughout the site along Imperial Highway, Yorba Linda Boulevard, Lemon Drive, and Lakeview Avenue. Therefore, the Town Center Project area is currently subject to high levels of automobile and truck noise. Please see **Section 5.6, Traffic and Circulation**, (beginning on page 5-133 of this EIR), for additional information regarding the existing noise conditions on the Project Site and within its vicinity.

## 8. Traffic and Circulation

The Town Center site has existing access from Lemon Drive, Imperial Highway, Yorba Linda Boulevard. All on-site intersections operate at an acceptable level of service under existing conditions.

The project area is currently served by the Orange County Transportation Authority (OCTA) with bus service along Imperial Highway, Lakeview Avenue, Yorba Linda Boulevard, and Lemon Drive through various routes (Routes 20, 26, and 131). The Yorba Linda Specific Plan area has an existing parking supply of 546 combined off-street and on-street parking spaces.

There are five bus stops located on Yorba Linda Boulevard, three eastbound and two westbound. There is one bus stop on Lakeview Avenue heading southbound. Lemon Drive has one bus stop eastbound, and Imperial Highway has one bus stop just north of Lemon Drive along the east side.

Currently there are no existing bike facilities within the project area.

Crosswalks are currently provided at the following intersection locations near the vicinity of the project:

- Imperial Highway/Lemon Drive (east and south legs only)
- Imperial Highway/Yorba Linda Boulevard (all legs)
- Plumosa Drive/Lemon Drive (north, east and west legs only)
- Olinda Street/Imperial Highway (all legs)
- Lakeview Avenue/Lemon Drive (north, south and west legs only)
- Lakeview Avenue/Yorba Linda Boulevard (north, east and south legs only)

Existing pedestrian sidewalks are provided on either side of Imperial Highway, Olinda Street and Main Street within the Specific Plan area. School Street does not currently contain pedestrian sidewalks on either side of the street. Arroyo Street contains limited sidewalk areas on the east side near Imperial Highway. Lemon Drive contains sidewalk on the north side of the street between Main Street and Lakeview Avenue and between Imperial Highway and Plumosa Drive. There is an approximate 250-foot gap on the north side of Lemon Street east of Plumosa Drive. Sidewalk exists on the south side of Lemon Drive from Imperial Highway to Lakeview Avenue, except for an approximate 440-foot gap west of Lakeview Avenue. Lakeview Avenue contains sidewalk on the east side of the street from Lemon Drive to Yorba Linda Boulevard. The west side of Lakeview Avenue contains approximately 260-feet of sidewalk north of Yorba Linda Boulevard, terminating 700-feet south of Lemon Drive.

Please see **Section 5.6, Traffic and Circulation** (beginning on page 5-133 of this EIR), for additional on the existing roadway network in and adjacent to the Town Center Project Site.

## 4. Cumulative Impact Analysis

The technical analysis contained in **Section 2, Project Description**, examines Project-specific impacts and the potential environmental effects associated with cumulative development. The California Environmental Quality Act (CEQA) requires that environmental impact reports (EIRs) discuss cumulative impacts, in addition to Project specific impacts. In accordance with CEQA, the discussion of cumulative impacts must reflect the severity of the impacts and the likelihood of their occurrence; however, the discussion need not be as detailed as the discussion of environmental impacts attributable to the project alone. According to §15355 of the CEQA Guidelines:

“Cumulative impacts” refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.

- (a) The individual effects may be changes resulting from a single project or a number of separate projects.
- (b) The cumulative impact from several projects is the change in the environment, which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

Section 15130(a) of the CEQA Guidelines also requires that EIRs discuss the cumulative impacts of a project when the project's incremental effect is cumulatively considerable. Where a Lead Agency is examining a project with an incremental effect that is not cumulatively considerable, it need not consider the effect significant, but shall briefly describe the basis for its conclusion. As further clarified by §15065 of the CEQA Guidelines, “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. If the combined cumulative impact associated with the project's incremental effect and the effects of other projects is not significant, §15130(a)(2) of the CEQA Guidelines requires a brief discussion in the EIR of why the cumulative impact is not significant and is not discussed in further detail. Section 15130(a)(3) of the CEQA Guidelines requires supporting analysis in the EIR if a determination is made that a project's contribution to a significant cumulative impact is rendered less than cumulatively considerable and, therefore, is not significant. CEQA recognizes that the analysis of cumulative impacts need not be as detailed as the analysis of project-related

impacts, but instead should "...be guided by the standards of practicality and reasonableness."<sup>9</sup>

The discussion of cumulative impacts in this Draft EIR focuses on whether the impacts of the Yorba Linda Town Center Project are cumulatively considerable.

In this Draft EIR, a combination of the following two methods is used depending upon the specific environmental issue area being analyzed: 1) a list of related development projects in the City of Yorba Linda was compiled and 2) projections from planning documents are used where appropriate.

**Table 4-1 Cumulative Developments, Project Land Use Summary**, includes those projects that are 1) completed but not fully occupied, 2) currently under construction or beginning construction, 3) proposed with applications on file at the City of Yorba Linda, or 4) reasonably foreseeable. The cumulative developments are intended to capture all of the study area intersections considered in the traffic analysis for the Yorba Linda Town Center Project.

**Table 4-1 Cumulative Developments, Project Land Use Summary**

#	Project	Land Use	Occupancy Percentage	
			Opening Year	2035
<b>City of Yorba Linda</b>				
1	Amalfi Hills	158 single family residential dwelling units	100%	100%
2	Tentative Tract Map 16208	168 single family residential dwelling units	50%	100%
3	Retail	25,500 square feet of commercial retail uses	100%	100%
4	Hover/Bastanchury Holding Co.	47 single family residential dwelling units	50%	100%
5	Costco Wholesale Gas Station	16 vehicle fueling positions	100%	100%
6	Oakcrest Terrace	69 apartment units	100%	100%
7	Canal Annex - Savi Ranch	54 apartment units	0%	100%
8	Nixon Archive Site	51 condo/townhomes	100%	100%
9	SWC Bastanchury / Lakeview	68 apartment units (western parcel)	0%	100%
		180 apartment units (center parcel)	0%	100%
		40 single family residential dwelling units (eastern parcel)	100%	100%
10	Prospect (Greenhouse)	48 single family residential dwelling units	50%	100%
11	Wabash & Rose	18 single family residential dwelling units	100%	100%
12	Yorba Linda / Prospect	80 condo/townhomes	100%	100%
13	Postal Annex SE Lemon & Eureka	5 single family residential dwelling units	0%	100%
14	4622 Plumosa	10 apartment units	0%	100%
15	Lakeview & Mariposa	159 apartment units <sup>1</sup>	100%	100%
16	Palisades at Vista del Verde	91 condo/townhomes	100%	100%
17	Brandywine Provence	28 single family residential dwelling units	50%	100%
18	Brandywine Homes (Highland Ave.)	15 single family residential dwelling units	50%	100%
<b>County of Orange</b>				
19	Cielo Vista	112 single family residential dwelling units	0%	100%
20	Esperanza Hills	374 <sup>2</sup> single family residential dwelling units	0%	100%

<sup>9</sup> CEQA Guidelines, §15130(b).

4. Cumulative Impact Analysis

#	Project	Land Use	Occupancy Percentage	
			Opening Year	2035
<b>City of Anaheim</b>				
21	Mountain Park	1,675 single family residential dwelling units	0%	100%
		825 condo/townhomes	0%	100%
		3,000 square foot convenience market	0%	100%
		800 student elementary school	0%	100%
		15 acres of parks	0%	100%
<b>City of Brea</b>				
22	La Floresta Development	398 medium density residential dwelling units	100%	100%
		787 high density residential dwelling units	100%	100%
		150 mixed-use residential dwelling units	100%	100%
		156,800 square feet of mixed-use commercial	100%	100%
		18 hole golf course	100%	100%
		20,000 square foot community center	100%	100%
		5.30 acre public facility (active adult)	100%	100%
		75.60 acres of natural open space	100%	100%

Source: Yorba Linda Commons Traffic Impact Analysis, Urban Crossroads. 2015

1 Now revised to 149 apartment units

2 Now revised to 340 single family residential units

## 5. Environmental Impact Analysis

### 5.1 Air Quality

#### 5.1-1 Introduction

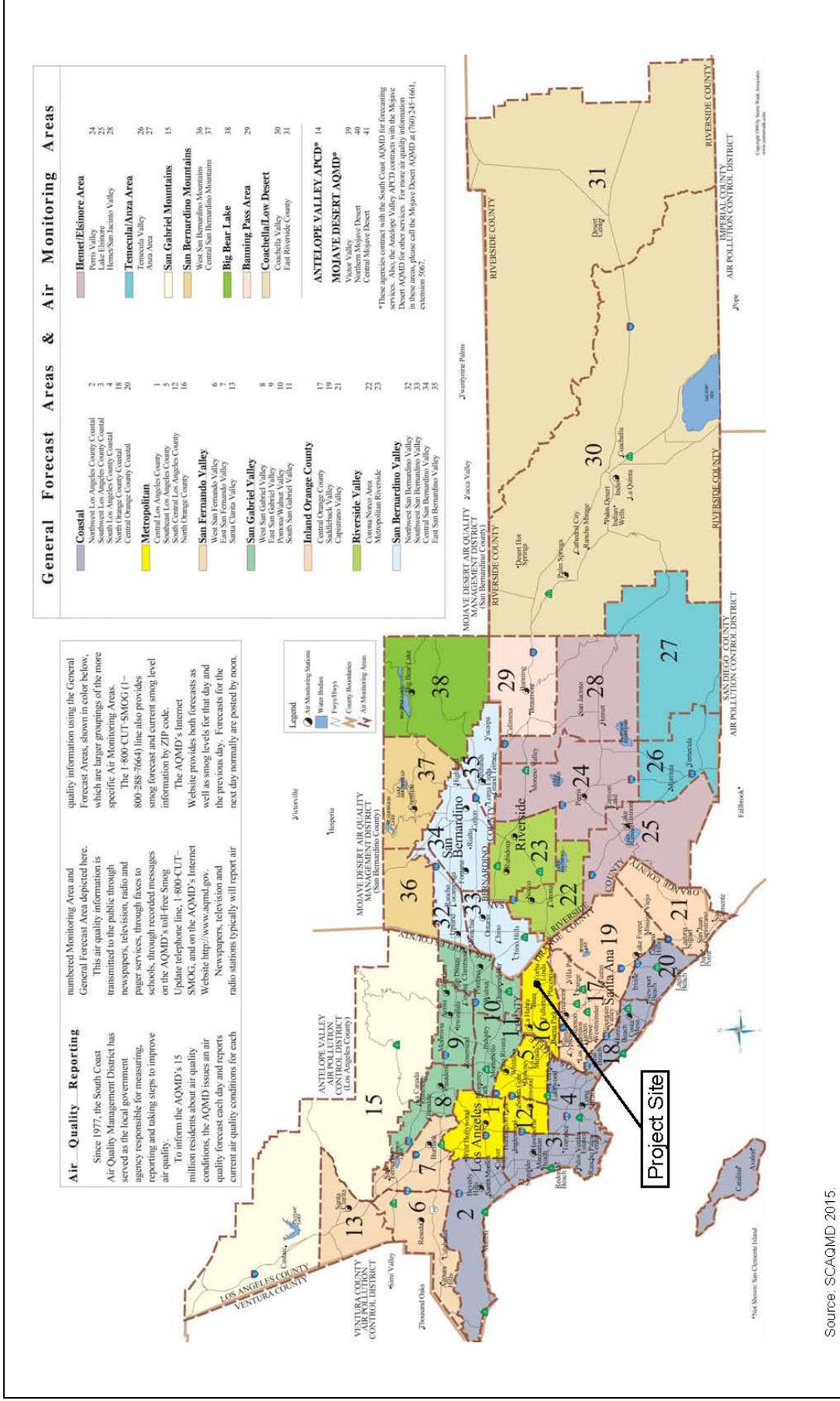
The purpose of this section is to examine the degree to which the Project may result in significant environmental impacts with respect to air quality. Both short-term construction emissions occurring from activities such as demolition, site grading and haul truck trips, and long-term effects related to the ongoing operation of the Project are discussed in this section. The potential for the Project to conflict with or obstruct implementation of the applicable air quality plan, to violate an adopted air quality standard or contribute substantially to an existing or projected air quality violation, to result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is designated to be in non-attainment, to expose sensitive receptors to substantial pollutant concentrations, or to create objectionable odors affecting a substantial number of people are discussed herein. This air quality analysis was based upon the “Air Quality Technical Report” prepared by Pomeroy Environmental Services, May 2015 (**Appendix 5.1**).

#### 5.1-2 Existing Conditions

The Project Site is located within the Orange County portion of the South Coast Air Basin (SoCAB). The SoCAB includes all of Orange County and the non-desert portions of Los Angeles, San Bernardino, and Riverside counties. The regional climate within the SoCAB is considered semi-arid and is characterized by warm summers, mild winters, infrequent seasonal rainfall, moderate daytime onshore breezes, and moderate humidity. The air quality within the SoCAB is primarily influenced by meteorological conditions and a wide range of emissions sources – such as dense population centers, heavy vehicular traffic, and industry. The South Coast Air Quality Management District (SCAQMD) divides the SoCAB into source receptor areas (SRAs) in which monitoring stations operate to monitor the various concentrations of air pollutants in the region. As shown in **Figure 5.1-1, Source Receptor Area Location Map**, the Project Site is located within SRA 16, which covers the North Orange County area.

#### Acronyms used in this section:

AQMP	Air Quality management Plan
CEQA	California Environmental Quality Act
EIR	Environmental Impact Report
CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CCAA	California Clean Air Act
CARB	California Air Resources Board
COHb	carboxyhemoglobin
EPA	U.S. Environmental Protection Agency
GHG	greenhouse gases
LST	local significance thresholds
MPO	Metropolitan Planning Organization
NAAQS	National Ambient Air Quality Standards
RCP	Regional Comprehensive Plan
RTP/SCS	SCAG's Regional Transportation Plan/ Sustainable Communities Strategy
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SIP	State Implementation Plan
SoCAB	South Coast Air Basin
SRA	Source Receptor Area
TAC	toxic air contaminant
TCSP	Town Center Specific Plan
ULSD	Ultra Low Sulfur Diesel
URBEMIS	Urban Emissions



**Figure 5.1-1**  
**Source Receptor Area Location Map**

## 1. Air Pollutants

Air pollutant emissions within the SoCAB are generated by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point sources and area sources. Point sources occur at an identified location and are usually associated with manufacturing and industry. Examples of point sources include boilers or combustion equipment that produce electricity or generate heat. Area sources are widely distributed and produce many small emissions. Examples of area sources include residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and consumer products such as lighter fluid and hair spray. Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources may be legally operated on roadways and highways. Off-road sources include aircraft, ships, trains, racecars, and self-propelled construction equipment. Air pollutants can also be generated by the natural environment, such as when fine dust particles are pulled off the ground surface and suspended in the air during high winds.

Federal and state governments have established ambient air quality standards for outdoor concentrations of various pollutants to protect public health and welfare. These pollutants are referred to as “criteria air pollutants” as a result of the specific standards, or criteria, that have been adopted for them. The national and state standards have been set at levels considered safe to protect public health, including the health of “sensitive” populations such as asthmatics, children, and the elderly with a margin of safety; and to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

The criteria air pollutants that are most relevant to current air quality planning and regulation in the SoCAB include ozone (O<sub>3</sub>), carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), respirable particulate matter (PM<sub>10</sub>), fine particulate matter (PM<sub>2.5</sub>), sulfur dioxide (SO<sub>2</sub>), and lead (Pb). In addition, toxic air contaminants (TACs) are of concern in the SoCAB. The characteristics of each of these pollutants are briefly described below.

- O<sub>3</sub> is a highly reactive and unstable gas that is formed when reactive organic gases (ROGs) and nitrogen oxides (NO<sub>x</sub>) – both byproducts of internal combustion engine exhaust – undergo slow photochemical reactions in the presence of sunlight. O<sub>3</sub> concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.
- CO is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest during winter mornings, when little to no wind and surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike O<sub>3</sub>, motor vehicles operating at slow speeds are the primary source of

CO in the SoCAB. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections.

- PM<sub>10</sub> and PM<sub>2.5</sub> consist of extremely small, suspended particles or droplets 10 microns and 2.5 microns or smaller in diameter, respectively. Some sources of particulate matter, like pollen and windstorms, are naturally occurring. However, in populated areas, most particulate matter is caused by road dust, diesel soot, combustion products, abrasion of tires and brakes, and construction activities.
- NO<sub>2</sub> is a nitrogen oxide compound that is produced by the combustion of fossil fuels, such as in internal combustion engines (both gasoline and diesel powered), as well as point sources, especially power plants. Of the seven types of NO<sub>x</sub> compounds, NO<sub>2</sub> is the most abundant in the atmosphere. Because ambient concentrations of NO<sub>2</sub> are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO<sub>2</sub> than those indicated by regional monitors.
- SO<sub>2</sub> is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high-sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO<sub>2</sub> oxidizes in the atmosphere, it forms sulfates (SO<sub>4</sub>). Collectively, these pollutants are referred to as sulfur oxides (SO<sub>x</sub>).
- Pb occurs in the atmosphere as particulate matter. The combustion of leaded gasoline is the primary source of airborne Pb in the SoCAB. The use of leaded gasoline is no longer permitted for on-road motor vehicles, so the majority of such combustion emissions are associated with off-road vehicles such as racecars. However, because leaded gasoline was emitted in large amounts from vehicles when leaded gasoline was used for on-road motor vehicles, Pb is present in many urban soils and can be re-suspended in the air. Other sources of Pb include the manufacturing and recycling of batteries, paint, ink, ceramics, and ammunition, and the use of secondary lead smelters.
- TACs refer to a diverse group of air pollutants that are capable of causing chronic (i.e., of long duration) and acute (i.e., severe but of short duration) adverse effects on human health. TACs include organic and inorganic chemical substances that may be emitted from a variety of common sources including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. TACs are different than “criteria” pollutants in that ambient air quality standards have not been established for them, largely because there are hundreds of air toxics, and their effects on health tend to be felt on a local scale rather than on a regional basis.

## 2. Health Effects of Criteria Pollutants

The health effects of the criteria pollutants (i.e., O<sub>3</sub>, CO, PM<sub>10</sub> and PM<sub>2.5</sub>, NO<sub>2</sub>, SO<sub>2</sub>, and Pb) and TACs are described below.<sup>10</sup> In addition, a list of the harmful effects of each criteria pollutant is provided in the table below.

**Table 5.1-1 Summary of Health Effects of Criteria Pollutants**

Pollutants	Primary Health and Welfare Effects
Ozone (O <sub>3</sub> )	<ul style="list-style-type: none"> <li>• Aggravation of respiratory and cardiovascular diseases</li> <li>• Reduced lung function</li> <li>• Increased cough and chest discomfort</li> </ul>
Carbon Monoxide (CO)	<ul style="list-style-type: none"> <li>• Aggravation of some heart disease (angina)</li> <li>• Reduced tolerance for exercise</li> <li>• Impairment of mental function</li> <li>• Impairment of fetal development</li> <li>• Death at high levels of exposure</li> </ul>
Particulate Matter (PM <sub>10</sub> and PM <sub>2.5</sub> )	<ul style="list-style-type: none"> <li>• Reduced lung function</li> <li>• Aggravation of respiratory and cardio-respiratory diseases</li> <li>• Increases in mortality rate</li> <li>• Reduced lung function growth in children</li> </ul>
Nitrogen Dioxide (NO <sub>2</sub> )	<ul style="list-style-type: none"> <li>• Aggravation of respiratory illness</li> </ul>
Sulfur Dioxide (SO <sub>2</sub> )	<ul style="list-style-type: none"> <li>• Aggravation of respiratory diseases (asthma, emphysema)</li> <li>• Reduced lung function</li> </ul>
Lead (Pb)	<ul style="list-style-type: none"> <li>• Behavioral and hearing disabilities in children</li> <li>• Nervous system impairment</li> </ul>

Source: SCAQMD, Guidance Document for Air Quality Issues in General Plans and Local Planning, 2005.

### O<sub>3</sub> (Ozone)

Individuals exercising outdoors, children and people with preexisting lung disease such as asthma and chronic pulmonary lung disease are considered to be the most susceptible sub-groups for ozone effects. Short-term exposures (lasting for a few hours) to ozone at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. Elevated ozone levels are also associated with increased school absences. In recent years, a correlation between elevated ambient ozone levels and increases in daily hospital admission rates, as well as mortality, has also been reported. An increased risk for asthma has been found in children who participate in multiple sports and live in high ozone communities. Ozone exposure under exercising conditions is known to increase the severity of the above-mentioned observed responses. Animal studies suggest that exposures to a combination of pollutants that include ozone may be more toxic than exposure to ozone alone. Although lung volume and resistance changes observed after a

<sup>10</sup> The descriptions of the health effects of the criteria pollutants are taken from Appendix C (Health Effects of Ambient Air Pollutants) of SCAQMD's "Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning" document.

single exposure diminish with repeated exposures, biochemical and cellular changes appear to persist, which can lead to subsequent lung structural changes.

### **Carbon Monoxide**

Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise, and electrocardiograph changes indicative of worsening oxygen supply to the heart. Inhaled CO has no direct toxic effect on the lungs, but exerts its effect on tissues by interfering with oxygen transport by competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Hence, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. Individuals most at risk include patients with diseases involving heart and blood vessels, fetuses, and patients with chronic hypoxemia (oxygen deficiency) as seen in high altitudes. Reduction in birth weight and impaired neurobehavioral development has been observed in animals chronically exposed to CO resulting in COHb levels similar to those observed in smokers. Recent studies have found increased risks for adverse birth outcomes with exposure to elevated CO levels. These include pre-term births and heart abnormalities. Additional research is needed to confirm these results.

### **Particulate Matter**

A consistent correlation between elevated ambient particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. In recent years, some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in life-span, and lung cancer. Daily fluctuations in fine particulate matter concentration levels have also been related to hospital admissions for acute respiratory conditions in children, to school and kindergarten absences, to a decrease in respiratory lung volumes in normal children and to increased medication use in children and adults with asthma. Recent studies show that lung function growth in children is reduced with long-term exposure to particulate matter. The elderly, people with pre-existing respiratory or cardiovascular disease and children appear to be more susceptible to the effects of PM<sub>10</sub> and PM<sub>2.5</sub>.

### **Nitrogen Dioxide**

Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposures to NO<sub>2</sub> at levels found in homes with gas stoves, which are higher than ambient levels found in Southern California. Increase in resistance to air flow and airway contraction

is observed after short-term exposure to NO<sub>2</sub> in healthy individuals. Larger decreases in lung functions are observed in individuals with asthma or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups. In animals, exposure to levels of NO<sub>2</sub> considerably higher than ambient concentrations results in increased susceptibility to infections, possibly due to the observed changes in cells involved in maintaining immune functions. The severity of lung tissue damage associated with high levels of ozone exposure increases when animals are exposed to a combination of O<sub>3</sub> and NO<sub>2</sub>.

### **Sulfur Dioxide**

A few minutes of exposure to low levels of SO<sub>2</sub> can result in airway constriction in some asthmatics, all of whom are sensitive to its effects. In asthmatics, increase in resistance to air flow, as well as reduction in breathing capacity leading to severe breathing difficulties, are observed after acute exposure to SO<sub>2</sub>. In contrast, healthy individuals do not exhibit similar acute responses even after exposure to higher concentrations of SO<sub>2</sub>. Animal studies suggest that despite SO<sub>2</sub> being a respiratory irritant, it does not cause substantial lung injury at ambient concentrations. However, very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract. Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient SO<sub>2</sub> levels. In these studies, efforts to separate the effects of SO<sub>2</sub> from those of fine particles have not been successful. It is not clear whether the two pollutants act synergistically or whether one pollutant alone is the predominant factor.

### **Sulfates**

Most of the health effects associated with fine particles and SO<sub>2</sub> at ambient levels are also associated with SO<sub>4</sub>. Thus, mortality and morbidity effects have been observed with an increase in ambient SO<sub>4</sub> concentrations. However, efforts to separate the effects of SO<sub>4</sub> from the effects of other pollutants generally have not been successful. Clinical studies of asthmatics exposed to sulfuric acid suggest that adolescent asthmatics are possibly a subgroup susceptible to acid aerosol exposure. Animal studies suggest that acidic particles such as sulfuric acid aerosol and ammonium bisulfate are more toxic than non-acidic particles like ammonium sulfate. Whether the effects are attributable to acidity or to particles remains unresolved.

### **Lead**

Fetuses, infants, and children are more sensitive than others to the adverse effects of lead exposure. Exposure to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow

simple commands, and lower intelligence levels. In adults, increased lead levels are associated with increased blood pressure. Lead poisoning can cause anemia, lethargy, seizures and death. It appears that there are no direct effects of lead on the respiratory system. Lead can be stored in the bone from early-age environmental exposure, and elevated blood lead levels can occur due to the breakdown of bone tissue during pregnancy, hyperthyroidism (increased secretion of hormones from the thyroid gland) and osteoporosis (breakdown of bony tissue). Fetuses and breast-fed babies can be exposed to higher levels of lead because of previous environmental lead exposure of their mothers.

### **Toxic Air Contaminants (TACs)**

TACs are a broad class of compounds known to cause or contribute to cancer or non-cancer health effects such as birth defects, genetic damage, and other adverse health effects. As discussed previously, effects from TACs may be both chronic and acute on human health. Acute health effects are attributable to sudden exposure to high quantities of air toxics. These effects include nausea, skin irritation, respiratory illness, and, in some cases, death. Chronic health effects can result from low-dose, long-term exposure from routine releases of air toxics. The effect of major concern for this type of exposure is cancer, which typically requires a period of 10 to 30 years after exposure to develop. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., benzene near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, state, and federal level.

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about two-thirds of the cancer risk from TACs (based on the statewide average). According to the California Air Resources Board (CARB), diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified by the CARB as TACs, and are listed as carcinogens either under California's Proposition 65 or under the federal Hazardous Air Pollutants programs. The United States Environmental Protection Agency (U.S. EPA) has adopted Ultra Low Sulfur Diesel (ULSD) fuel standards to reduce diesel particulate matter. As of June 1, 2006, refiners and importers nationwide have been required by the U.S. EPA to ensure that at least 80% of the volume of the highway diesel fuel they produce or import would be ULSD-compliant. As of December 10, 2010, only ULSD fuel is available for highway use nationwide. In California, which was an early adopter of ULSD fuel and engine technologies, 100% of the diesel fuel sold – downstream from refineries, up to and including fuel terminals that store diesel fuel – has been ULSD fuel since July 15, 2006. Since September 1, 2006, all diesel fuel offered for sale at retail outlets in California has been ULSD fuel.

### 3. Ambient Air Quality Conditions

#### Local Air Quality

As stated previously, the Project Site is located within SRA 16, which covers the North Orange County area. SCAQMD Station No. 3177 collects ambient air quality data for SRA 16. This station currently monitors for O<sub>3</sub>, CO, and NO<sub>2</sub>. **Table 5.1-2 Summary of Ambient Air Quality in the Project Vicinity**, identifies the ambient pollutant concentrations that were measured at SCAQMD Station No. 3177 from 2011 to 2013 (2013 is the latest year of available data).

In addition to the pollutants outlined in **Table 5.1-2** below, the Project Site vicinity is also subject to elevated TACs due to mobile and other TAC sources. As disclosed in the Multiple Air Toxics Exposure Study IV (MATES IV), Carcinogenic Risk Interactive Map, the existing carcinogenic risk for the Project area is approximately 318 incidents per one million.<sup>11</sup> By comparison, the estimated population weighted risk across the SoCAB for from the MATES IV Study is 367 per one million with the OEHHA 2003 calculation methodology. Applying the revised OEHHA (February 2015) methodology to the modeled air toxics levels, the MATES IV estimated population weighed risk is 897 per million, an increase of about 2.5 times.

**Table 5.1-2 Summary of Ambient Air Quality in the Project Vicinity**

Air Pollutants Monitored Within SRA 16 North Orange County	Year		
	2011	2012	2013
<b>O<sub>3</sub></b>			
Maximum 1-hour concentration measured	0.095 ppm	0.100 ppm	0.104 ppm
Number of days exceeding national 0.12 ppm 1-hour standard	0	0	0
Number of days exceeding state 0.09 ppm 1-hour standard	1	3	2
Maximum 8-hour concentration measured	0.074 ppm	0.078 ppm	0.078 ppm
Number of days exceeding national 0.075 ppm 8-hour standard (revised 8-hour ozone standard effective May 27, 2008)	0	2	1
Number of days exceeding state 0.07 ppm 8-hour standard (established effective May 17, 2006)	3	3	2
<b>CO</b>			
Maximum 8-hour concentration measured	2.1 ppm	2.4 ppm	2.2 ppm
<b>NO<sub>2</sub></b>			
Maximum 1-hour concentration measured	0.0698 ppm	0.0675 ppm	0.0903 ppm
Annual average	0.0177 ppm	0.0180 ppm	0.0218 ppm
Does measured annual average exceed national 0.0534 ppm annual average standard?	No	No	No
Does measured annual average exceed state 0.030 ppm annual average standard?	No	No	No

Note: ppm = parts by volume per million of air; µg/m<sup>3</sup>=micrograms per cubic meter; n/a = data not available or not collected by the District.  
Source: SCAQMD, Historical Data by Year, website: <http://www.aqmd.gov/home/library/air-quality-data-studies/historical-data-by-year>, May 2015.

11 MATES IV Draft Final Report, April 1, 2015. Website: <http://www.aqmd.gov/home/library/air-quality-data-studies/health-studies/mates-iv>

## Sensitive Receptors

Land uses that are considered more sensitive to changes in air quality than others are referred to as sensitive receptors. Land uses such as primary and secondary schools, hospitals, and convalescent homes are considered to be sensitive to poor air quality because the very young, the old, and the infirm are more susceptible to respiratory infections and other air quality-related health problems than the general public. Residential uses are considered sensitive because people in residential areas are often at home for extended periods of time, so they could be exposed to pollutants for extended periods. Recreational areas are considered moderately sensitive to poor air quality because vigorous exercise associated with recreation places a high demand on the human respiratory function. As shown in **Figure 5.1-2, Air Quality Sensitive Receptor Location Map**, the following surrounding uses have been identified as sensitive receptors for purposes of this analysis:

- 1) Residential use adjacent to site;
- 2) Planned residential use 60 feet east;
- 3) Senior housing 60 feet east;
- 4) Planned residential use 300 feet northeast;
- 5) Residential use 50 feet north;
- 6) Residential use adjacent to the site;
- 7) Religious/school institution 45 feet west; and,
- 8) Park/passive open space area 110 feet southwest.

### 5.1-3 Regulatory Setting

Air quality in the United States is governed by the federal Clean Air Act (CAA). In addition to being subject to the requirements of the CAA, air quality in California is also governed by more stringent regulations under the California Clean Air Act (CCAA). At the federal level, the CAA is administered by the U.S. EPA. In California, the CCAA is administered by the CARB at the state level and by the Air Quality Management Districts at the regional and local levels. Air quality within the SoCAB is addressed through the efforts of various federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for improving the air quality within the SoCAB are discussed below.



**Figure 5.1-2**  
**Air Quality Sensitive Receptor Location Map**

## Federal Standards

### United States Environmental Protection Agency (U.S. EPA)

The U.S. EPA is responsible for setting and enforcing the federal ambient air quality standards for atmospheric pollutants. It regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives. The U.S. EPA also has jurisdiction over emissions sources outside state waters (outer continental shelf) and establishes various emissions standards for vehicles sold in states other than California. As part of its enforcement responsibilities, the U.S. EPA requires each state with nonattainment areas to prepare and submit a State Implementation Plan (SIP). The SIP is a plan for each state which identifies how that state will attain and/or maintain the primary and secondary National Ambient Air Quality Standards (NAAQS) set forth in section 109 of the CAA. These plans are developed through a public process, formally adopted by the state, and submitted by the Governor's designee to the U.S. EPA. The CAA requires the U.S. EPA to review each plan and any plan revisions and to approve the plan or plan revisions if consistent with the CAA.

## State Standards

### California Air Resources Board (CARB)

The CARB, a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, the CARB conducts research, sets California Ambient Air Quality Standards, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. The CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hair spray, aerosol paints, and lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. In some cases, the state standards are more restrictive than the federal standards established under the CAA.

Off-road diesel vehicles, which include construction equipment, are also regulated by the CARB for both in-use (existing) and new engines. Four sets of standards implemented by the CARB for new off-road diesel engines, known as Tiers. Tier 1 standards began in 1996. Tiers 2 and 3 were adopted in 2000 and were more stringent than the Tier 1 standards. Tier 2 and Tier 3 standards were completely phased in by 2006 and 2008, respectively. Tier 4 standards became effective in 2011. Tier 4 emission standards will reduce particulate matter and NO<sub>x</sub> emissions of late model cars to 90% below current levels. Since off-road vehicles that are used in construction and other related industries can last 30 years or longer, most of those that are in service today are still part of an older fleet that do not have emission controls. On July 26, 2007, the CARB approved a regulation to reduce

emissions from existing (in-use) off-road diesel vehicles that are used in construction and other industries. This regulation became effective on June 15, 2008, and sets an anti-idling limit of five minutes for all off-road vehicles 25 horsepower and up. It also establishes emission rates targets for the off-road vehicles that decline over time to accelerate turnover to newer, cleaner engines and require exhaust retrofits to meet these targets. The regulation on the larger fleets started in 2010, while medium and small fleet requirements targeted compliance in 2013 and 2015, respectively.

The U.S. EPA and the CARB use different standards for determining whether the SoCAB is in attainment. Federal and state standards are summarized in **Table 5.1-3, Ambient Air Quality Standards and Attainment Status for the South Coast Air Basin (Orange County Portion)**. The attainment status for the Orange County portion of the SoCAB with regard to the national ambient air quality standards (NAAQS) and California ambient air quality standards (CAAQS) is also shown in **Table 5.1-3**. The CCAA designates air basins as either in attainment or nonattainment for each state air quality standard. The SoCAB (Orange County portion) is designated as a state and federal nonattainment area for O<sub>3</sub> and PM<sub>2.5</sub>. In addition, the SoCAB (Orange County portion) is designated as a state nonattainment area for PM<sub>10</sub>.

**Table 5.1-3 Ambient Air Quality Standards and Attainment Status for the South Coast Air Basin (Orange County Portion)**

Air Pollutant	Averaging Time	State Standard	Federal Standard	SCAQMD Attainment Status	
				California Standard	Federal Primary Standard
Ozone (O <sub>3</sub> )	1 Hour	0.09 ppm (180 µg/m <sup>3</sup> )	Revoked	Non-attainment	Non-attainment
	8 Hour	0.070 ppm (137 µg/m <sup>3</sup> )	0.075 ppm (147 µg/m <sup>3</sup> )		
Carbon Monoxide (CO)	1 Hour	20.0 ppm (23,000 µg/m <sup>3</sup> )	35.0 ppm (40,000 µg/m <sup>3</sup> )	Attainment	Attainment
	8 Hour	9.0 ppm (10,000 µg/m <sup>3</sup> )	9.0 ppm (10,000 µg/m <sup>3</sup> )		
Nitrogen Dioxide (NO <sub>2</sub> )	1 Hour	0.18 ppm (339 µg/m <sup>3</sup> )	0.10 ppm (188 µg/m <sup>3</sup> )	Attainment	N/A
	Annual	0.03 ppm (57 µg/m <sup>3</sup> )	0.0534 ppm (100 µg/m <sup>3</sup> )	Attainment	N/A
Lead (Pb)	30 Day Avg.	1.5 µg/m <sup>3</sup>	--	Attainment	Attainment
	Calendar Qtr.	--	1.5 µg/m <sup>3</sup>		
Sulfur Dioxide (SO <sub>2</sub> )	1 Hour	0.25 ppm	0.075 ppm	Attainment	Attainment
	24 Hour	0.04 ppm	--		
Particulate Matter 10 (PM <sub>10</sub> )	24 Hour	50.0 µg/m <sup>3</sup>	150.0 µg/m <sup>3</sup>	Non-attainment	Attainment
	Annual	20.0 µg/m <sup>3</sup>	Revoked		
Particulate Matter 2.5 (PM <sub>2.5</sub> )	24 Hour	--	35.0 µg/m <sup>3</sup>	Non-attainment	Non-attainment
	Annual	12.0 µg/m <sup>3</sup>	µg/m <sup>3</sup>		

Notes: ppm = parts by volume per million of air; µg/m<sup>3</sup>=micrograms per cubic meter

Sources: California Air Resources Board, Ambient Air Quality Standards website: <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf> and California Air Resources Board, State Area Designation Maps website: <http://www.arb.ca.gov/desig/adm/adm.htm>. All data accessed May 2015.

## Regional Standards

### Southern California Association of Governments (SCAG)

SCAG is a Joint Powers Authority under California state law, established as an association of local governments and agencies that voluntarily convene as a forum to address regional issues. Under federal law, SCAG is designated as a Metropolitan Planning Organization (MPO) and under state law as a Regional Transportation Planning Agency and a Council of Governments. The SCAG region encompasses six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura) and 191 cities in an area covering more than 38,000 square miles. The agency develops long-range regional transportation plans including sustainable communities strategy and growth forecast components, regional transportation improvement programs, regional housing needs allocations and a portion of the South Coast Air Quality management plans. SCAG's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), which was adopted on April 4, 2012, identifies growth forecasts that are used in the development of air quality-related land use and transportation control strategies by the SCAQMD.

### South Coast Air Quality Management District (SCAQMD)

The SCAQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and indirect sources to meet federal and state ambient air quality standards. It has responded to this requirement by preparing a series of Air Quality Management Plans (AQMPs). The most recent of these was adopted by the Governing Board of the SCAQMD on December 7, 2012. This AQMP, referred to as the 2012 AQMP, was prepared to comply with the federal and state Clean Air Acts and amendments, to accommodate growth, to reduce the high levels of pollutants in the SoCAB, to meet federal and state air quality standards, and to minimize the fiscal impact that pollution control measures have on the local economy. The 2012 AQMP identifies the control measures that will be implemented to reduce major sources of pollutants. Implementation of control measures established in the previous AQMPs has substantially decreased the population's exposure to unhealthful levels of pollutants, even while substantial population growth has occurred within the SoCAB. The future air quality levels projected in the 2012 AQMP are based on several assumptions. For example, the SCAQMD assumes that general new development within the SoCAB will occur in accordance with population growth and transportation projections identified by SCAG in its most current version of the RTP/SCS. The 2012 AQMP also assumes that general development projects will include strategies (mitigation measures) to reduce emissions generated during construction and operation in accordance with SCAQMD and local jurisdiction regulations which are designed to address air quality impacts and pollution control measures.

The SCAQMD has also prepared the CEQA Air Quality Handbook (1993) to assist lead agencies, as well as consultants, project proponents, and other interested parties, in evaluating potential air quality impacts of projects and plans proposed in the SoCAB. The AQMD is in the process of developing an “Air Quality Analysis Guidance Handbook” to replace the CEQA Air Quality Handbook approved by the AQMD Governing Board in 1993.

## Local Standards

### City of Yorba Linda

Local jurisdictions, such as the City of Yorba Linda (City), have the authority and responsibility to reduce air pollution through their police power and decision-making authority. Specifically, the City is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The City is also responsible for implementation of the transportation control measures in the AQMP, such as bus turnouts, energy-efficient streetlights, and synchronized traffic signals.

The City’s General Plan (1993) identifies air quality related goals and policies in the Circulation Element and the Growth Management Element. Specifically, the Growth Management Element has identified the following goals/policies specific to air quality:

**Goal 1B:** To contribute to improved air quality in the South Coast Air Basin in support of the South Coast Air Quality Management Plan.

*Discussion:* The City recognizes that air quality must be improved. Yorba Linda is a very small part of the urban complex that accounts for the serious pollutant levels within the South Coast Air Basin. Improved air quality requires a coordinated approach between local governments and between local/regional agencies. The City will achieve as much as it can to reduce emissions levels, given the land use, transportation, and economic constraints under which it must operate.

This will be accomplished through its policy and regulatory powers to implement workable measures which address air quality impacts of existing and proposed development.

Policy 1.1 Participate with the County and other cities in Orange County to coordinate air quality implementation on a countywide basis.

Policy 1.2 Stimulate mixed uses in the Community area and key opportunity areas to contribute to reduced vehicle trips.

- Policy 1.3 Develop a package of measures which will achieve maximum reduction in vehicle trips and vehicle miles traveled that is practical in light of the percentage of the City that is built-out.
- Policy 1.4 Cooperate with Orange County jurisdictions in establishing various strategies which may include parking management, auto free zones, and additional growth management mechanisms which clearly bring cost effective emissions reductions.
- Policy 1.5 Seek greater efficiency in the City's transportation system through the modified Superstreet program and the bus system.

**Goal 2B:** Reduce air pollutant emissions associated with development projects.

*Discussion:* New developments have the opportunity to incorporate pollutant control measures into project design. By conditioning projects to address air quality measures, the City can contribute to future pollutant reduction targets at reasonable economic costs.

- Policy 2.1 Integrate Air Quality considerations into the City's land use regulatory system and project application and standard conditions.
- Policy 2.2 Provide incentives for mixed-use projects and exceptional design features contributing to emissions reduction.
- Policy 2.3 Give visibility and acknowledgement to projects which reflect sound air quality improvement features.

#### 5.1-4 Thresholds of Significance

##### 1. Appendix G of the CEQA Guidelines

In accordance with guidance provided in Appendix G to the CEQA Guidelines, the Project would have a significant impact on air quality if it would cause any of the following to occur:

- a) Conflict with or obstruct implementation of the applicable air quality plan;
- b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including release in emissions which exceed quantitative thresholds for ozone precursors);

- d) Expose sensitive receptors to substantial pollutant concentrations; or
- e) Create objectionable odors affecting a substantial number of people.

## SCAQMD Thresholds

### Consistency with the Applicable AQMP

The SCAQMD has adopted criteria for consistency with regional plans and the regional AQMP in its CEQA Air Quality Handbook. Specifically, the indicators of consistency are: 1) whether the project would increase the frequency or severity of existing air quality violations or cause or contribute to new air quality violations; and 2) whether the project would exceed the assumptions utilized in preparing the AQMP.

### Violation of Standards or Substantial Contribution to Air Quality Violations

As the agency principally responsible for comprehensive air pollution control in the SoCAB, the SCAQMD recommends that projects should be evaluated in terms of air pollution control thresholds established by the SCAQMD and published in the CEQA Air Quality Handbook. These thresholds were developed by the SCAQMD to provide quantifiable levels to which projects can be compared. The most current significance thresholds, shown in **Table 5.1-4, SCAQMD Air Quality Significance Thresholds**, are used in this analysis.

### Cumulatively Considerable Increase of Criteria Pollutants

The SCAQMD's CEQA Air Quality Handbook identifies several methods to determine the cumulative significance of land use projects (i.e., whether the contribution of a project is cumulatively considerable). However, the SCAQMD no longer recommends the use of these methodologies. Instead, the SCAQMD recommends that any construction-related emissions and operational emissions from individual development projects that exceed the project-specific mass daily emissions thresholds identified above also be considered cumulatively considerable.<sup>12</sup> The SCAQMD neither recommends quantified analyses of the emissions generated by a set of cumulative development projects nor provides thresholds of significance to be used to assess the impacts associated with these emissions.

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<sup>12</sup> White Paper on Regulatory Options for Addressing Cumulative Impacts from Air Pollution Emissions, SCAQMD Board Meeting, September 5, 2003, Agenda No. 29, Appendix D, p. D-3.

**Table 5.1-4 SCAQMD Air Quality Significance Thresholds**

Mass Daily Thresholds <sup>a</sup>		
Pollutant	Construction	Operation
NO <sub>x</sub>	100 pounds/day	55 pounds/day
VOC <sup>b</sup>	75 pounds/day	55 pounds/day
PM <sub>10</sub>	150 pounds/day	150 pounds/day
PM <sub>2.5</sub>	55 pounds/day	55 pounds/day
SO <sub>x</sub>	150 pounds/day	150 pounds/day
CO	550 pounds/day	550 pounds/day
Lead	3 pounds/day	3 pounds/day
Toxic Air Contaminants and Odor Thresholds		
Toxic Air Contaminants (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk $\geq$ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas $\geq$ 1 in 1 million) Hazard Index $\geq$ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
GHG	10,000 MT/yr CO <sub>2</sub> eq for industrial facilities	
Ambient Air Quality for Criteria Pollutants <sup>c</sup>		
NO <sub>2</sub>	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 1-hour average – 0.10 ppm (federal) <sup>d</sup> Annual arithmetic mean – 0.03 ppm (state)	
PM <sub>10</sub>	24-hour average – 10.4 $\mu$ g/m <sup>3</sup> (construction) <sup>e</sup> & 2.5 $\mu$ g/m <sup>3</sup> (operation) Annual average – 1.0 $\mu$ g/m <sup>3</sup>	
PM <sub>2.5</sub>	24-hour average – 10.4 $\mu$ g/m <sup>3</sup> (construction) <sup>e</sup> & 2.5 $\mu$ g/m <sup>3</sup> (operation)	
Sulfate	24-hour average – 25 $\mu$ g/m <sup>3</sup> (state)	
CO	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 1-hour average – 20 ppm (state) and 25 ppm (federal) 8-hour average – 9.0 ppm (state/federal)	

Notes: ppm = parts per million by volume;  $\mu$ g/m<sup>3</sup> = micrograms per cubic meter

<sup>a</sup> Source: SCAQMD CEQA Handbook (SCAQMD, 1993).

<sup>b</sup> The definition of VOC includes ROG compounds and additional organic compounds not included in the definition of ROG. However, for the purposes of this evaluation, VOC and ROG will be considered synonymous.

<sup>c</sup> Ambient air quality thresholds for criteria pollutants based on SCAQMD Rule 1303, table A-2 unless otherwise stated.

<sup>d</sup> In January 2010, the U.S. EPA proposed a new 1-hour national air quality standard of 0.10 ppm for NO<sub>2</sub>, which is more stringent than the state's current 1-hour threshold of 0.18 ppm. For the purposes of conducting a conservative analysis, the more stringent national one-hour standard for NO<sub>2</sub> is used as a threshold in the evaluation of the Project's air quality impacts.

<sup>e</sup> Ambient air quality threshold based on SCAQMD Rule 403.

Source: SCAQMD CEQA Handbook (SCAQMD, 1993), SCAQMD Air Quality Significance Thresholds, website: <http://aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2> accessed May 2015.

### **Exposure of Sensitive Receptors to Substantial Pollutant Concentrations**

The SCAQMD currently recommends that impacts to sensitive receptors be considered significant when a project generates localized pollutant concentrations of NO<sub>2</sub>, CO, PM<sub>10</sub>, or PM<sub>2.5</sub> at sensitive receptors near a Project Site that exceed the localized pollutant concentration thresholds listed above or when a project's traffic causes CO concentrations at sensitive receptors located near congested intersections to exceed the national or state ambient air quality standards. The roadway CO thresholds would also apply to the contribution of emissions associated with cumulative development.

### **Exposure to Objectionable Odors**

A significant impact may occur if objectionable odors occur that would adversely impact sensitive receptors. Odors are typically associated with industrial projects involving the use of chemicals, solvents, petroleum products, and other strong-smelling elements used in manufacturing processes, as well as sewage treatment facilities and landfills.

## **5.1-5 Environmental Impacts**

### **1. Methodology**

This analysis focuses on the nature and magnitude of the change in the air quality environment due to implementation of the Project. Air pollutant emissions associated with the Project would result from Project operations and from Project-related traffic volumes. Construction activities would also generate air pollutant emissions at the Project Site and on roadways resulting from construction-related traffic. The net increases in Project Site emissions generated by these activities and other secondary sources have been quantitatively estimated and compared to thresholds of significance recommended by the SCAQMD (see Section 5.1-6, **Impacts Analysis**, (beginning on page 5-22)).

### **Construction Emissions**

#### **Regional Emissions**

The regional construction emissions associated with the Project were calculated using the California Emissions Estimator Model (CalEEMod 2013.2.2) recommended by the SCAQMD. CalEEMod was developed in collaboration with the air districts of California as a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects. CalEEMod provides several improvements compared to Urban Emissions (URBEMIS) 2007, including but not limited to the latest factors, survey data, and calculation

methodologies for criteria pollutants and GHGs. While both models are supported by the SCAQMD, the impact analysis and conclusions for the Project have been based on the results from CalEEMod as recommended by SCAQMD.

Construction activities associated with demolition, site preparation, grading, and building construction would generate pollutant emissions. Specifically, these construction activities would temporarily create emissions of dusts, fumes, equipment exhaust, and other air contaminants. These construction emissions were compared to the thresholds established by the SCAQMD (see **Table 5.1-4**, page 5-18).

### Localized Emissions

In addition to the SCAQMD's regional significance thresholds, the SCAQMD has established localized significance criteria in the form of ambient air quality standards for criteria pollutants (see **Table 5.1-4** on page 5-18). To minimize the need for detailed air quality modeling to assess localized impacts, SCAQMD developed mass-based localized significance thresholds (LSTs) that are the amount of pounds of emissions per day that can be generated by a project that would cause or contribute to adverse localized air quality impacts. These localized thresholds, which are found in the mass rate look-up tables in the "Final Localized Significance Threshold Methodology" document prepared by the SCAQMD,<sup>13</sup> apply to daily construction areas that are less than or equal to five acres in size and are only applicable to the following criteria pollutants: NO<sub>x</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub>. LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standards, and are developed based on the ambient concentrations of that pollutant for each SRA. In terms of NO<sub>x</sub> emissions, the two principal species of NO<sub>x</sub> are nitric oxide (NO) and NO<sub>2</sub>, with the vast majority (95%) of the NO<sub>x</sub> emissions being comprised of NO. However, because adverse health effects are associated with NO<sub>2</sub>, the analysis of localized air quality impacts associated with NO<sub>x</sub> emissions is focused on NO<sub>2</sub> levels. NO is converted to NO<sub>2</sub> by several processes, the two most important of which are 1) the reaction of NO with ozone, and 2) the photochemical reaction of NO with hydrocarbons. When modeling NO<sub>2</sub> emissions from combustion sources, the SCAQMD assumes that the conversion of NO to NO<sub>2</sub> is complete at a distance of 5,000 meters from the source. For PM<sub>10</sub> LSTs, the thresholds were derived based on requirements in SCAQMD Rule 403 – Fugitive Dust. For PM<sub>2.5</sub> LSTs, the thresholds were derived based on a general ratio of PM<sub>2.5</sub> to PM<sub>10</sub> for both fugitive dust and combustion emissions. As described in more detail below, the resulting on-site construction emissions generated for each construction phase were analyzed against the applicable LST for each phase.

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13 SCAQMD, Final Localized Significance Threshold Methodology, June 2003, Revised July 2008.

For the purposes of a CEQA analysis, the SCAQMD considers a sensitive receptor to be to be a receptor such as residence, hospital, convalescent facility where it is possible that an individual could remain for 24 hours. Thus, according to the SCAQMD, the LSTs for PM<sub>10</sub> and PM<sub>2.5</sub>, which are based on a 24-hour averaging period, would be appropriate to evaluate the localized air quality impacts of a project on nearby sensitive receptors. Additionally, since a sensitive receptor is considered to be present onsite for 24 hours, LSTs based on shorter averaging times, such as the one-hour NO<sub>2</sub> or the one-hour and eight-hour CO ambient air quality standards, would also apply when evaluating localized air quality impacts on sensitive receptors. However, LSTs based on shorter averaging periods, such as the NO<sub>2</sub> and CO LSTs, are applied to receptors such as industrial or commercial facilities since it is reasonable to assume that workers at these sites could be present for periods of one to eight hours.<sup>14</sup> Therefore, this analysis evaluates localized air quality impacts from construction activities associated with the Project on sensitive receptors for NO<sub>2</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub>, and on “non-sensitive” receptors (e.g., industrial or commercial facilities) for NO<sub>2</sub> and CO.

### Operational Emissions

Operational emissions associated with the Project were also calculated using CalEEMod 2013.2.2 and the information provided in the traffic study prepared for the Project. Operational emissions associated with the Project would be comprised of mobile source emissions and area source emissions. Mobile source emissions are generated by the increase in motor vehicle trips to and from the Project Site associated with operation of the Project. Area source emissions are generated by natural gas consumption for space and water heating, and landscape maintenance equipment. To determine if a regional air quality impact would occur, the increase in emissions is compared with the SCAQMD’s recommended regional thresholds for operational emissions (see **Table 5.1-4** on page 5-18).

As discussed above, the SCAQMD has developed LSTs that are based on the amount of pounds of emissions per day that can be generated by a project that would cause or contribute to adverse localized air quality impacts. However, because the LST methodology is applicable to projects where emission sources occupy a fixed location, LST methodology would typically not apply to the operational phase of the Project because emissions are primarily generated by mobile sources traveling on local roadways over potentially large distances or areas. LSTs would apply to the operational phase of a project, if the project includes stationary sources or attracts mobile sources that may spend long periods queuing and idling at the site. For example, the LST

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<sup>14</sup> SCAQMD, Final Localized Significance Threshold Methodology, June 2003, Revised July 2008.

methodology applies to operational projects such as warehouse/transfer facilities.<sup>15</sup> As the Project would include a mixed-use commercial development with retail, cinema, and restaurant uses, an operational analysis against the LST methodology is not applicable and thus has not been included in this analysis.

## 5.1-6 Impacts Analysis

### 1. Regional Construction Air Quality Impacts

For purposes of this analysis, it is estimated that the Project would begin construction toward the end of 2015 and construction would be completed by the end of 2016 (an approximate 12-month construction duration). In an effort to identify the worst-case daily air quality impacts associated with the construction of the Project, this analysis assumes construction would be undertaken with the following primary construction phases: 1) Demolition/Site Clearing, 2) Grading/Soil Import/Foundations, and 3) Structural Building/Finishing. Each construction phase has been detailed below.

#### Demolition/Site Clearing

The Project would require demolition, site clearing, and potential relocation of existing uses on the Project Site. Specifically, two of three existing cottages were assigned a historic resource status code and could be relocated from their existing locations. In addition to the removal/relocation of these uses, demolition would include the removal of asphalt, concrete, other ancillary structures, trees, fences, and other existing debris. This analysis estimates up to approximately 3,500 tons of debris would be demolished from the site over approximately 13 construction days. The daily on-site demolition activities would require the following equipment: one concrete/industrial saw, three excavators, and two rubber tired dozers.

#### Grading/Soil Import/Foundation

After the completion of demolition/site clearing, grading, soil import and foundation preparation activities would occur for approximately 1 to 2 months and would involve the cut and fill of land to ensure the proper base and slope for the building pads and foundations.

With respect to soil import, it is estimated the Project would require approximately 100,000 cubic yards (cy) of soil import to balance the site. This activity is anticipated to generate a maximum of 200 truck-loads per day (or 200 round trips, 400 one-way trips). Under the assumption each truck load would carry approximately 16 cy of soil, approximately 3,200 cy of soil import would occur per day for approximately 31 construction days, resulting in

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<sup>15</sup> SCAQMD, Sample Construction Scenarios for Projects Less than Five Acres in Size, February 2005, page 1-3.

100,000 cy of total soil import. The following two potential haul routes have been identified for the import of materials to the site:

1. Southbound SR-57 to southbound Imperial Highway (SR-90) to Lemon Drive to Lakeview Avenue to Project Site;
2. Westbound SR-91 to northbound Imperial Highway (SR-90) to Yorba Linda Boulevard to Lakeview Avenue to Project Site.

Trucks from southbound Imperial Highway (SR-90) are expected to enter and exit the site via Lemon Drive and Lakeview Avenue. Trucks from northbound Imperial Highway (SR-90) are expected to enter and exit the site via Yorba Linda Boulevard and Lakeview Avenue.

As for on-site activities, this analysis assumes daily grading activities would require the following equipment: two excavators, one grader, one rubber tired dozer, two scrapers, and two tractors/loaders/backhoes.

### **Building Construction**

The Project includes the construction of approximately 125,345-149,295 square feet of commercial and retail uses and 718 parking spaces (approximately half in structured parking and half in surface parking). The building construction phase is expected to occur for approximately 10 months. Upon completion of the building shells, interior finishing (coatings) and paving of parking areas and streets would follow. It is estimated that architectural coatings would occur over 2 months during building construction, and paving would occur over one month during the building construction phase. This analysis assumes that the maximum daily construction building activities would require the following equipment: one crane, three forklifts, one generator set, three tractor/loader/backhoes, one welder, one air compressor, two pavers, two pieces of paving equipment, and two rollers.

The analysis of regional daily construction emissions has been prepared utilizing the CalEEMod computer model recommended by the SCAQMD. **Table 5.1-5, Estimated Peak Daily Construction Emissions**, identifies daily emissions that are estimated to occur on the peak construction day for each of the construction phases, although construction time frames and day-to-day construction activities may vary. As noted in Regulatory Compliance Measure 1, these calculations assume that appropriate dust control measures would be implemented as part of the Project during each phase of development, as specified by SCAQMD Rule 403 (Fugitive Dust). Rule 403 control requirements include, but are not limited to: applying water in sufficient quantities to prevent the generation of visible dust plumes (three times per day); applying soil binders to uncovered areas; reestablishing ground cover as quickly as possible; utilizing a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the Project Site; and maintaining effective cover over exposed areas.

**Table 5.1-5 Estimated Peak Daily Construction Emissions**

Emissions Source	Emissions in Pounds per Day					
	ROG	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Demolition/Site Clearing Phase</b>						
Fugitive Dust	--	--	--	--	2.25	0.34
Off-Road Diesel Equipment	4.51	48.36	36.07	0.04	2.45	2.29
On-Road Diesel (Hauling)	0.57	8.60	6.45	0.02	0.60	0.25
Worker Trips	0.06	0.08	0.86	0.01	0.17	0.05
<b>Total Emissions</b>	<b>5.14</b>	<b>57.04</b>	<b>7.31</b>	<b>0.07</b>	<b>5.47</b>	<b>2.93</b>
SCAQMD Thresholds	75.00	100.00	550.00	150.00	150.00	55.00
Significant Impact?	No	No	No	No	No	No
<b>Grading/Soil Import/Foundations Phase</b>						
Fugitive Dust	--	--	--	--	3.49	1.42
Off-Road Diesel Equipment	6.48	74.81	49.14	0.06	3.58	3.30
On-Road Diesel (Hauling)	7.88	114.92	92.55	0.30	8.70	3.46
Worker Trips	0.07	0.10	1.03	0.01	0.23	0.06
<b>Total Emissions</b>	<b>14.43</b>	<b>189.83</b>	<b>142.72</b>	<b>0.37</b>	<b>16.00</b>	<b>8.24</b>
SCAQMD Thresholds	75.00	100.00	550.00	150.00	150.00	55.00
Significant Impact?	No	Yes	No	No	No	No
<b>Building Construction Phase</b>						
Building Construction Off-Road Diesel Equipment	3.41	28.51	18.51	0.03	1.97	1.85
Building Construction Vendor Trips	0.67	6.11	8.48	0.01	0.53	0.21
Building Construction Worker Trips	0.63	0.85	8.89	0.02	1.94	0.52
Architectural Coatings	29.42	--	--	--	--	--
Architectural Coating Off-Road Diesel Equipment	0.37	2.37	1.88	0.01	0.20	0.18
Architectural Coatings Worker Trips	0.12	0.17	1.76	0.01	0.38	0.10
Paving Off-Road Diesel Equipment	2.09	22.39	14.82	0.02	1.26	1.16
Paving Off-Gas	0.36	--	--	--	--	--
Paving Worker Trips	0.05	0.07	0.78	0.01	0.17	0.05
<b>Total Emissions</b>	<b>37.12</b>	<b>60.47</b>	<b>55.12</b>	<b>0.11</b>	<b>6.45</b>	<b>4.07</b>
SCAQMD Thresholds	75.00	100.00	550.00	150.00	150.00	55.00
Significant Impact?	No	No	No	No	No	No

Note: Calculations assume compliance with SCAQMD Rule 403 – Fugitive Dust.

CalEEMod data provided in Appendix A to Air Quality Technical Report found in Appendix 5.1 to this DEIR.

As shown in **Table 5.1-5**, the peak daily emissions generated during the grading/soil import phase of the Project would exceed the regional emission thresholds recommended by the SCAQMD for NO<sub>x</sub>. These emissions are primarily due to the import of 100,000 cy of soil and the on-site equipment necessary to handle daily soil and grading volumes. It should be noted the Project would not exceed any other regional significance thresholds recommended by the SCAQMD during any other construction phase. Nevertheless, regional air quality impacts associated with Project-related construction emissions would be considered a potentially significant impact.

## 2. Localized Construction Air Quality Impacts

As illustrated in **Figure 5.1-2, Air Quality Sensitive Receptor Location Map** (page 5-11), the following surrounding uses have been identified as sensitive receptors for purposes of this analysis: 1) Residential use adjacent to site; 2) Planned residential use 60 feet east; 3) Senior housing 60 feet east; 4) Planned residential use 300 feet northeast; 5) Residential use 50 feet north; 6) Residential use adjacent to the site; 7) Religious/school institution 45 feet west; and, 8) Park/passive open space area 110 feet southwest. As described previously, the SCAQMD has developed localized significance thresholds (LST) for construction areas that are one, two, and five acres in size to simplify the evaluation of localized emissions. LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the applicable federal or state ambient air quality standard. LSTs are provided for each source receptor area (SRA) and various distances from the source of emissions.

In the case of this analysis, the Project Site is located within SRA 16 – North Orange County with sensitive receptors located within 25 meters. The closest receptor distance in the SCAQMD's mass rate look-up tables is 25 meters. Projects that are located closer than 25 meters to the nearest receptor are directed to use the LSTs for receptors located within 25 meters. The CalEEMod User's Guide (Appendix A to the Air Quality Technical Report, Calculation Details for CalEEMod) states the applicable LST should be based on the equipment list for each construction phase and calculated according to the anticipated maximum number of acres a given piece of equipment can pass over in an 8-hour workday.

Based on the Project's construction assumptions outlined previously, approximately 2.0 acres per day would be disturbed for demolition activities and approximately 4.0 acres per day would be disturbed during the grading/soil import/foundations phase. With respect to building construction, architectural coatings, and paving activities, the 5.0-acre LST in SRA 16 with sensitive receptors located within 25 meters have conservatively been utilized to address the potential localized NO<sub>x</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub> impacts. The application of a 5.0-acre threshold for building construction activities on an 11.22-acre site would be conservative as construction emissions would likely be spread out more evenly on the 11.22-acre site compared to the condensed 5-acre threshold applied in this analysis. The LSTs for a 4.0-acre site in SRA 16 with sensitive receptors located within 25 meters were calculated per SCAQMD Linear Regression Methodology. See Appendix A to the Air Quality Technical Report (**Appendix 5.1** to this DEIR) for more details.

As shown in **Table 5.1-6** below, the Project would not exceed any of the identified localized thresholds of significance during construction and these impacts would be less than significant.

**Table 5.1-6 Localized On-Site Peak Daily Construction emissions**

Construction Phase <sup>a</sup>	Total On-Site Emissions (Pounds Per Day)			
	NO <sub>x</sub> <sup>b</sup>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Demolition/Site Clearing	48.36	36.07	4.70	2.63
SCAQMD Localized Thresholds	147.00	762.00	6.00	4.00
Significant Impact?	No	No	No	No
Grading/Soil Import/Foundations	74.81	49.14	7.07	4.72
SCAQMD Localized Thresholds	194.85	1,123.62	9.31	5.31
Significant Impact?	No	No	No	No
Building Construction Emissions <sup>c</sup>	53.27	35.21	3.43	3.19
SCAQMD Localized Thresholds	221.00	1,311.00	11.00	6.00
Significant Impact?	No	No	No	No

Note: Calculations assume compliance with SCAQMD Rule 403 – Fugitive Dust.

- a Based on the Project's construction assumptions outlined previously, the applicable LST for demolition is 2.0 acres, grading is 4.0 acres, and building construction is 5.0 acres. The localized thresholds for each phase are based on a receptor distance of 25 meters (82 feet) in SCAQMD's SRA 16. Where necessary, LST calculated per SCAQMD Linear Regression Methodology.
- b The localized thresholds listed for NO<sub>x</sub> in this table takes into consideration the gradual conversion of NO<sub>x</sub> to NO<sub>2</sub>, and are provided in the mass rate look-up tables in the "Final Localized Significance Threshold Methodology" document prepared by the SCAQMD. The analysis of localized air quality impacts associated with NO<sub>x</sub> emissions is focused on NO<sub>2</sub> levels as they are associated with adverse health effects.
- c The building construction emission total includes architectural coating and paving emissions.
- CalEEMod data provided in Appendix A to the Air Quality Technical Report (Appendix 5.1 to this DEIR)

## 5.1-7 Mitigation Measures

### 1. Regulatory Compliance Measure

MM 5.1-1 The Applicant shall implement all control measures required and/or recommended by the SCAQMD (i.e., Rule 403 - Fugitive Dust), including but not limited to the following:

- Use watering to control dust generation during demolition of structures or break-up of pavement;
- Water active grading/import areas and unpaved surfaces at least three times daily;
- Cover stockpiles with tarps or apply non-toxic chemical soil binders;
- Limit vehicle speed on unpaved roads to 15 miles per hour;
- Sweep daily (with water sweepers) all paved construction parking areas and staging areas;
- Provide daily clean-up of mud and dirt carried onto paved streets from the Project Site;
- Suspend excavation and grading activity when winds (instantaneous gusts) exceed 15 miles per hour over a 30-minute period or more; and
- An information sign shall be posted at the entrance to each construction site that identifies the permitted construction hours and provides a telephone number to call and receive information about the construction project or to report complaints regarding excessive fugitive dust generation. Any reasonable complaints shall be rectified within 24 hours of their receipt.

## 2. Level of Significance After Mitigation

The implementation of Regulatory Compliance Measure 5.1-1 would reduce the Project's construction related fugitive dust emissions. However, construction-related NO<sub>x</sub> emissions would exceed the established SCAQMD thresholds of significance, and regional construction air quality impacts would be considered significant and unavoidable.

With respect to localized construction impacts, on-site emissions generated by the Project would not exceed the established SCAQMD LSTs. Therefore, localized construction-related air quality impacts would be considered less than significant.

## 3. Regional Operational Air Quality Impacts

The Project includes the operation of approximately 140,658 square feet of commercial and retail uses and 703 parking spaces. Accordingly, the Project's operational regional air quality emissions associated with area sources, energy demand, and mobile sources (motor vehicles) have been calculated with CalEEMod. These results are presented in **Table 5.1-7** below. As shown, the operational emissions generated by the Project would not exceed the regional thresholds of significance set by the SCAQMD. Therefore, impacts associated with regional operational air quality emissions would be less than significant.

**Table 5.1-7 Daily Operational Emissions**

Emissions Source	Emissions in Pounds per Day					
	ROG	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Summertime (Smog Season) Emissions						
Area Sources	9.82	<0.01	0.20	<0.01	<0.01	<0.01
Energy Demand	0.24	2.22	1.86	0.01	0.17	0.17
Mobile (Motor Vehicles)	18.57	30.37	153.35	0.33	23.47	6.52
<b>Total Project Emissions</b>	<b>28.64</b>	<b>32.59</b>	<b>155.42</b>	<b>0.34</b>	<b>23.64</b>	<b>6.69</b>
SCAQMD Thresholds	55.00	55.00	550.00	150.00	150.00	55.00
Potentially Significant Impact?	No	No	No	No	No	No
Wintertime (Non-Smog Season) Emissions						
Area Sources	9.82	<0.01	0.20	<0.01	<0.01	<0.01
Energy Demand	0.24	2.22	1.86	0.01	0.17	0.17
Mobile (Motor Vehicles)	19.95	31.94	159.46	0.32	23.48	6.52
<b>Total Project Emissions</b>	<b>30.01</b>	<b>34.17</b>	<b>161.53</b>	<b>0.33</b>	<b>23.65</b>	<b>6.69</b>
SCAQMD Thresholds	55.00	55.00	550.00	150.00	150.00	55.00
Potentially Significant Impact?	No	No	No	No	No	No

Note: Column totals may not add due to model rounding.

CalEEMod data provided in Appendix A to the Air Quality Technical Report (Appendix 5.1 to this DEIR).

## 4. Localized Operational Air Quality Impacts

As discussed previously, because the LST methodology is applicable to projects where emissions sources occupy a fixed location, LST methodology would typically not apply to the operational phase of a mixed-use commercial Project because emissions for these projects are primarily

generated by mobile sources traveling on local roadways over potentially large distances or areas. LSTs would apply to the operational phase of a project, if the project includes stationary sources or attracts mobile sources that may spend long periods queuing and idling at the site. For example, the LST methodology applies to operational projects such as warehouse/transfer facilities.<sup>16</sup> As the Project would include a mixed-use commercial development with retail, cinema, and restaurant uses, an operational analysis against the LST methodology is not appropriate and these impacts would be considered less than significant.

The Project would not result in potentially significant CO “hot spots” and a Project-specific CO hotspots analysis is not needed to reach this conclusion. It has long been recognized that CO exceedances (hot spots) are caused by vehicular emissions, primarily when idling at intersections. Vehicle emissions standards have become increasingly more stringent in the last twenty years. With the turnover of older vehicles, introduction of cleaner fuels and implementation of control technology on industrial facilities, CO concentrations for the Project vicinity have historically met state and federal attainment status for the air quality standards. For reference and as noted previously in **Table 5.1-2** (page 5-9), in SRA 16 (North Orange County) the maximum 8-hour CO concentration over the past three years was 2.4 ppm in 2012. Based on these measured concentrations, CO concentrations in SRA 16 are substantially below the state and federal standards. Accordingly, with the steadily decreasing CO emissions from vehicles, even very busy intersections do not result in exceedances of the CO standard. Therefore, the Project would not have the potential to cause or contribute to an exceedance of the California one-hour or eight-hour CO standards of 20 or 9.0 ppm, respectively. Impacts with respect to localized CO concentrations would be less than significant.

### **TAC Impacts**

The Project would not include the operations of any land uses routinely involving the use, storage, or processing of carcinogenic or non-carcinogenic toxic air contaminants. Thus, no appreciable operational-related toxic airborne emissions would result from Project implementation. With respect to construction, the construction activities associated with the Project would be typical of other similar mixed-use developments in the City, and would be subject to the regulations and laws relating to toxic air pollutants at the regional, state, and federal level that would protect sensitive receptors from substantial concentrations of these emissions. Therefore, impacts associated with the release of toxic air contaminants would be less than significant.

### **Odor Impacts**

The Project does not include any of the uses identified by the SCAQMD as being associated with odors (such as agricultural uses, wastewater treatment plants, food processing plants,

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<sup>16</sup> SCAQMD, Sample Construction Scenarios for Projects Less than Five Acres in Size, February 2005, page 1-3.

chemical plants, composting, refineries, landfills, dairies, or fiberglass molding). In addition, SCAQMD Rule 402 (Nuisance), and SCAQMD Best Available Control Technology Guidelines would limit potential objectionable odor impacts during the Project's long-term operations phase.

Potential sources that may emit odors during construction activities include the use of architectural coatings and solvents as well as asphalt paving. SCAQMD Rules 1108 and 1113 limit the amount of volatile organic compounds from cutback asphalt and architectural coatings and solvents, respectively.

Based on mandatory compliance with SCAQMD Rules, no construction activities or materials that would create a significant level of objectionable odors are proposed.

The Project would not create objectionable odors affecting a substantial number of people during construction or long-term operation. Therefore, a less than significant impact would occur with respect to the creation of objectionable odors.

## 5.1-8 General Plan Consistency

### 1. AQMP Consistency

This analysis evaluates the two criteria for consistency with regional plans and the regional AQMP adopted by the SCAQMD:

- 1) Will the Project increase the frequency or severity of existing air quality violations or cause or contribute to new air quality violations?; and
- 2) Will the Project exceed the assumptions utilized in preparing the AQMP?

With respect to the first criteria, area air quality planning, including the AQMP, assumes that there will be emissions from new growth, but that such emissions may not impede the attainment and may actually contribute to the attainment of applicable air quality standards within the SoCAB. As discussed previously, the Project would result in construction air quality emissions that exceed the SCAQMD thresholds of significance. The Project would not exceed long-term operational air quality emission thresholds of significance. Construction-related emissions would be temporary in nature, lasting only for the duration of the construction period, and would not have a long-term impact on the region's ability to meet state and federal air quality standards. Furthermore, the Project will be required to comply with applicable SCAQMD rules and regulations for new or modified sources. For example, the Project must comply with SCAQMD Rule 403 for the control of fugitive dust during construction. By meeting SCAQMD rules and regulations, project construction activities will be consistent with the goals and objectives of the AQMP to improve air quality in the SoCAB. With respect to operations, because the Project would not exceed long-term operational thresholds of significance, would not introduce substantial stationary sources of emissions, and would not have the potential to cause or contribute to an exceedance of the

California 1-hour or 8-hour CO standards, the Project would not have the potential to increase the frequency or severity of existing air quality violations or cause or contribute to new air quality violations.

With respect to the second criteria, the AQMP was prepared to achieve national and state air pollution standards within the region. A project that is considered to be consistent with the AQMP would not interfere with attainment of AQMP goals, because the growth from the Project is included in the regional projections used to formulate the AQMP. Therefore, projects, land uses, and activities that are consistent with the applicable assumptions used in the development of the AQMP would not jeopardize attainment of the air quality levels identified in the AQMP, even if they exceed the SCAQMD's recommended daily emissions thresholds. The Project is a mixed-use commercial development that would not increase the housing or population estimates for the City, and would serve existing local demands for retail, cinema, and restaurant uses. As such, the Project would not have the potential to exceed or conflict with the assumptions and growth projections utilized in the preparation of the AQMP.

Accordingly, through evaluation of the Project against the two criteria for consistency with regional plans and the regional AQMP adopted by the SCAQMD, impacts with respect to regional plans and AQMP consistency would be less than significant.

## 2. General Plan Consistency

Local jurisdictions, including the City, have the authority and responsibility to reduce air pollution through its police power and decision-making authority. Specifically, the City is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The City's General Plan (1993) identifies air quality related goals and policies in the Growth Management Element. **Table 5.1-8** below illustrates that the Project would be consistent with the City's General Plan and these impacts would be less than significant.

**Table 5.1-8 Project Consistency with Applicable Air Quality Goals and Policies of the General Plan**

Goal/Policy	Consistency Analysis
<b>Goal 1B:</b> To contribute to improved air quality in the South Coast Air Basin in support of the South Coast Air Quality Management Plan.	
<b>Policy 1.2</b> Stimulate mixed uses in the Community area and key opportunity areas to contribute to reduced vehicle trips.	<b>Consistent.</b> The Project's mixed-use nature and urban location would serve to reduce trips by approximately 32% compared to a project without those features. This reduction in trips would serve to reduce vehicles mile traveled (VMT), congestion and associated air quality emissions.
<b>Policy 1.3</b> Develop a package of measures which will achieve maximum reduction in vehicle trips and vehicle miles traveled that is practical in light of the percentage of the City that is built-out.	<b>Consistent.</b> The Project's mixed-use nature and urban location would serve to reduce trips by approximately 32% compared to a project without those features. This reduction in trips would serve to reduce VMT, congestion and associated air quality emissions.

Goal/Policy	Consistency Analysis
<b>Goal 2B:</b> Reduce air pollutant emissions associated with development projects.	
<b>Policy 2.1</b> Integrate Air Quality considerations into the City's land use regulatory system and project application and standard conditions.	<b>Consistent.</b> As required by the City, this EIR assesses potential air quality impacts from the development project and identifies applicable reduction and control measures for air quality.
<b>Policy 2.2</b> Provide incentives for mixed-use projects and exceptional design features contributing to emissions reduction.	<b>Consistent.</b> The Project's mixed-use nature and urban location would serve to reduce trips by approximately 32% compared to a project without those features. This reduction in trips would serve to reduce VMT, congestion and associated air quality emissions. Further, in keeping with the Town Center vision, the Project would create a pedestrian-friendly shopping and dining experience, as well as provide efficient on and off-site traffic circulation so that customers can easily and safely access the project. These features would also serve to reduce air quality emissions.
<b>Policy 2.3</b> Give visibility and acknowledgement to projects which reflect sound air quality improvement features.	<b>Consistent.</b> The Project's mixed-use nature and urban location would serve to reduce trips by approximately 32% compared to a project without those features. This reduction in trips would serve to reduce VMT, congestion and associated air quality emissions. Further, in keeping with the Town Center vision, the Project would create a pedestrian-friendly shopping and dining experience, as well as provide efficient on and off-site traffic circulation so that customers can easily and safely access the project. These features would also serve to reduce air quality emissions.

### 5.1-9 Cumulative Impacts

#### 1. Construction Impacts

Because the Orange County portion of the SoCAB is currently in non-attainment for O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>, cumulative development could violate an air quality standard or contribute to an existing or projected air quality violation. This would be considered a significant cumulative impact.

According to the SCAQMD, individual construction projects that exceed the SCAQMD recommended daily thresholds for project-specific impacts would cause a cumulatively considerable increase in emissions for those pollutants for which the SoCAB is in non-attainment.

As discussed previously, construction emissions associated with the Proposed Project would exceed the SCAQMD's regional thresholds of significance for NO<sub>x</sub>. Therefore, the cumulative impact of the Project's construction emissions would be considered significant.

With respect to TACs, the greatest potential for TAC emissions at related projects would involve diesel particulate emissions associated with trucks and heavy equipment. The construction activities associated with the Project and related projects would be similar to other development projects in the City, and would be subject to the regulations and laws relating to toxic air pollutants at the regional, state, and federal level that would protect sensitive receptors from substantial concentrations of these emissions. In addition and similar to the Proposed Project, related projects construction activity would not result in long-term substantial sources of TAC emissions (i.e., 70

years) and would not combine with the Project to generate ongoing TAC emissions. Thus, cumulative TAC emissions from the Project and related projects would be considered less than significant.

With respect to cumulative odor impacts, potential sources that may emit odors during construction activities at each related project include the use of architectural coatings, solvents, and asphalt paving. SCAQMD Rules 1108 and 1113 limit the amount of volatile organic compounds from cutback asphalt and architectural coatings and solvents, respectively. Based on mandatory compliance with SCAQMD Rules, it is anticipated that construction activities and materials used in the construction of the Project and related projects would not combine to create objectionable odors. Thus, cumulative odor impacts are considered less than significant.

## **2. Operational Impacts**

Due to the non-attainment status of O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>, the generation of daily operational emissions associated with cumulative development would result in a cumulative significant impact associated with the cumulative net increase of any criteria pollutant for which the region is in non-attainment. With respect to operational emissions, the SCAQMD has indicated that if an individual project results in air emissions of criteria pollutants (CO, ROG, NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>) that exceed the SCAQMD recommended daily thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants for which the Proposed Project region is in non-attainment under an applicable federal or state ambient air quality standard. As discussed previously, the operational emissions associated with the Project would not exceed the established SCAQMD threshold levels during the operation of the Project. Therefore, the cumulative impact of the Project's operational emissions would be less than significant.

## **3. Air Quality Management Plan Consistency**

Cumulative development can affect implementation of AQMP. The AQMP was prepared to accommodate growth, reduce pollutants within the areas under SCAQMD jurisdiction, improve the overall air quality of the region, and minimize the impact on the economy. Growth considered to be consistent with the AQMP would not interfere with attainment because this growth is included in the projections utilized in the formulation of the AQMP. Consequently, as long as growth in the SoCAB is within the projections for growth identified by SCAG, implementation of the AQMP will not be obstructed by such growth and cumulative impacts would be less than significant. Since the Project would not conflict with growth projections, it would not have a cumulatively considerable conflict with, or obstruction of, the implementation of the applicable air quality plan. Thus, cumulative impacts related to plan consistency would be less than significant.

### **5.1-10 Cumulative Mitigation Measures**

There are no mitigation measures that can reduce the significant cumulative construction impacts.

### **5.1.11 Significant Unavoidable Impacts**

As discussed above, because the Orange County portion of the SoCAB is currently in non-attainment for O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>, cumulative development could violate an air quality standard or contribute to an existing or projected air quality violation. This would be considered a significant cumulative impact. According to the SCAQMD, individual construction projects that exceed the SCAQMD recommended daily thresholds for project-specific impacts would cause a cumulatively considerable increase in emissions for those pollutants for which the SoCAB is in non-attainment. Therefore cumulative construction impacts are significant and unavoidable.

## 5.2 Cultural Resources

### 5.2-1 Introduction

This section addresses the potential direct and indirect impacts of the Proposed Project on historical resources.

This section incorporates information from a historical resources analysis for the single-family cottages located at 4842, 4852 and 4871 School Street, Yorba Linda, California. This historical resources report focuses upon the development impacts on the three houses on School Street. This study is provided in the Historical Resources CEQA Impacts Analysis prepared by PCR Services Corporation dated June 1, 2015 (**Appendix 5.2** of this EIR).

As indicated in the Notice of Preparation/Initial Study, potential impacts on archeological and paleontological resources and human remains were determined to be less than significant. Therefore, these potential impacts are not discussed in this section of the EIR.

### 5.2-2 Existing Conditions

#### 1. Historical Resources

The City of Yorba Linda is located in the northeastern section of Orange County, California. It began in 1910 as an agricultural town, primarily focusing on citrus production.

#### Early History (1810–1906)

##### Rancho Santiago de Santa Ana and the Yorba Residence

Governor Jose Figueroa of Mexico granted 62,516 acres of land to Jose Antonio Yorba in 1810. Yorba named his grant Rancho Santiago de Santa Ana, which covered most of present-day Orange County.<sup>17</sup> In 1834, nine years after the death of Jose Antonio, his son Bernardo Yorba was granted a 13,328-acre portion of the rancho. The land, Rancho Cañon de Santa Ana, contained much of what is now Yorba Linda.

##### The Town of Carlton

The first sign of development of what was to become Yorba Linda occurred in 1887 when a 400-acre portion of Bernardo Yorba's land was sold to Los Angeles-based land developer Lee McGown, Jr.<sup>18</sup> This section of land was located at what is now the northwest side of Yorba Linda, near Rose Drive

#### Acronyms used in this section:

CEQA	California Environmental Quality Act
EIR	Environmental Impact Report
NAHC	Native American Heritage Commission
NOP	Notice of Preparation

17 Santa Ana Historical Preservation Society, "Rancho Santiago de Santa Ana," <http://www.santaanahistory.com/articles/ranchos.html>, Accessed June 2015.

18 Luis Reichman, Gary Cardinale, and Roger C. LeRoque, *The Orange County Experience Second Edition*, (Temple City, CA: Pacific Shoreline Press), 1989, 130.

and north of Imperial Highway. Like many other early land developers, McGown laid out a town site on his recently purchased land, and by late 1887 the town of Carlton was born.

By February of 1888, three quarters of McGown's land had been sold. In the same year, the Carlton Land and Water Company was formed, which succeeded McGown in becoming the land development company for the town.<sup>19</sup> The newly formed water and development company drilled several wells to provide water for the residents. However, only a single well-produced potable water; the other wells were either dry or undrinkable. Therefore, the lack of water caused many of the early residents of Carlton to move out of the area. By the following year, the town of Carlton had largely disappeared, mainly due to the lack of water.

## **Founding of Yorba Linda and Its Early Development (1907–1928)**

### **Early Town Layout of Downtown Area (1907–1928)**

The Yorba's Rancho Canon de Santa Ana was sold (3,500 acres of the rancho) to a gentleman by the name of Maurice Rey on January 5, 1907. A few days after the sale, on January 10, Rey in turn sold the land to Jacob Stern, who was a merchant and pioneer resident in the nearby town of Fullerton. The following year, Stern hired the Janss Investment Company, a Los Angeles-based development company headed by Dr. Peter Janss, to develop and bring investors into his newly acquired land.<sup>20</sup>

The new town was named Yorba Linda. "Yorba" was selected after the family that owned the original rancho land, and "Linda," a Spanish word meaning pretty, was added to create the town's name.<sup>21</sup>

Having learned from the demise of Carlton 20 years earlier, the Janss Company formed the Yorba Linda Water Company in 1909 to create a new irrigation system. With the improved water system the citrus and avocado industries began to thrive.<sup>22</sup>

### **Citrus and Avocado Industry**

With the available water and relatively inexpensive land, residents of the town of Yorba Linda became great producers of citrus and avocados in the first part of the twentieth century. In response to the growing industry, the Yorba Linda Citrus

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<sup>19</sup> *Los Angeles Times* advertisements, February 10, 1888, and March 9, 1888.

<sup>20</sup> "Chronology," *Yorba Linda 25 Year Anniversary Magazine*, (1992) 17.

<sup>21</sup> "Chronology," *A Hundred Years of Yesterdays*, (1992), 213.

<sup>22</sup> March Butz. *Yorba Linda, Its History*, (Covina, CA: Taylor Publishing Company, 1979), 37.

Association was formed in 1912, and by 1917, it had a membership that represented 1,200 acres of citrus orchards.<sup>23</sup>

The success of the thriving industry also resulted in the construction of other buildings in downtown during the 1910s. The buildings consisted of a two-story Masonic Lodge building in 1914 on the southwest side of Main Street and a one-story building on the west side of Olinda Street, just north of what is now Imperial Highway; the latter housed the town's first library in 1916. The Masonic Lodge still stands and the one-story library building was demolished in the late 1950s to make way for a new library building.<sup>24</sup> As a result of the success of the local farms and the growth of downtown, the population of the town grew to 350 by 1920.

### **Late 1910s and early 1920s Residential Development**

With the core of the town created by late 1910s, tracts of land surrounding Main Street were subdivided for residential development by this time. By 1920, several homes had been constructed along the east and west sides of Lakeview Avenue, from Lemon Drive to the north to just south of Yorba Linda Boulevard.

Despite the relative lull in construction in and around the downtown area, a small number of single-family residences were constructed in areas north of the downtown core. Non-residential buildings were also built during the 1920s. Commercial buildings were constructed on the west side of Main Street, including a one-story hardware store built in 1927 with an attached gasoline station on the northwest corner of Main and Imperial Highway; the hardware store still stands and retains its original use.

## **The Great Depression and World War II (1929–1945)**

### **Citrus in the 1930s**

When the Great Depression hit in 1929, the town of Yorba Linda had been in existence for over 20 years. The following decade became a period of relative inactivity in terms of development. However, the citrus and avocado industries remained relatively successful throughout the Depression.

The citrus industry entered the decade with one of its most profitable seasons as a record number of Valencia oranges were shipped.<sup>25</sup> The town also had 119 acres of avocado orchards by this time.<sup>26</sup> However, by the mid-1930s, the citrus industry began to feel some of the effects of the Great Depression, and there was a surplus of oranges due to a decrease in distribution. The lemon orchards, however, experienced one of

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23 *Los Angeles Times*, "Big Dividends Paid by Yorba Linda Ranches," September 23, 1917, (V12).

24 March Butz, *Yorba Linda, Its History*, 79.

25 *Yorba Linda Star*, "1929 Valencia Season Sets New Record Here," November 15, 1929.

26 "Chronology," *Hundred Years of Yesterday*, 214.

its most successful growing seasons in 1935 when 116 rail cars (containing lemons) were shipped out.<sup>27</sup> Despite some of the setbacks, the citrus and avocado industries in Yorba Linda were able to remain profitable for most of the decade.

### **Imperial Highway**

In November of 1929, the Imperial Highway Association was formed.<sup>28</sup> Although there were already two established links, which consisted of either the Pacific Electric or Southern Pacific Railway, the automobile was fast becoming a preferred choice of transportation for the local citizens.<sup>29</sup> The highway was to traverse through five counties which, in addition to Los Angeles and Orange Counties, included Riverside, Imperial and San Diego Counties. Imperial Highway essentially opened up Yorba Linda to Los Angeles County. The completion of the highway also signaled the end of Pacific Electric Railway's presence in the town; on January 22, 1938, the railway discontinued its service to Yorba Linda.<sup>30</sup>

### **Tragic Events**

Two tragic events occurred after electric rail service ended. The first event occurred in March of 1938, when five straight days of heavy rain caused floods throughout Southern California.<sup>31</sup> A levee retaining the Santa Ana River broke and a large portion of Orange County, including Yorba Linda, was flooded. Approximately eight months after the flood, on the evening of November 6, 1938, a fire broke out at a grocery store located on the west side of Main Street. The fire spread and eventually threatened the entire downtown area, but with the efforts of seven county and state fire agencies, including the local volunteer fire fighters, the rest of downtown was spared and the fire was confined to a single block. Along with the grocery store, a café building and an adjacent residence located next to the grocery store and a warehouse for the Yorba Linda Water Company were all destroyed in the fire. All of the buildings were immediately rebuilt.<sup>32</sup>

The end of electric railway service and the rebuilding of downtown basically signaled the end of the Great Depression, as by this time the entire state was beginning to recover. Additionally, the construction of Imperial Highway set the stage for both commercial and residential development in Yorba Linda following the end of World War II in 1945.

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27 *Yorba Linda Star*, "Lemon Shipments by Y.L. House Set New Record," May 20, 1938.

28 *Los Angeles Times*, "Imperial Highway Association Formed," November 18, 1929, 13.

29 *Yorba Linda Star*, "Let's Get 'on' the Highway," February 13, 1925, 13.

30 Crump, Spencer, *Ride the Big Red Cars*, (Corona Del Mar, CA: Trans-Anglo Books, 1977), 226.

31 *Los Angeles Times*, "Thirty Dead in Southland Floods," March 3, 1938, 1.

32 *Yorba Linda Star*, "Two New Buildings Arising to Efface Most of Evidences of Disastrous Fire of November 5," December 16, 1938, 1.

## Post-War Residential Development

### Post-War Housing Boom

The four-year period during World War II (1941–1945) somewhat mirrored the period of the Great Depression. Citrus and avocado had successful seasons, and there was little to no building activity.

By July 1947 plans were made for the creation of the town's first post-war housing development. The subdivision, also known as the Linda Vista Tract, was located at the northern end of Main Street, just north of Lemon Avenue. Two pre-existing homes constructed in the 1920s were located on the southern end of the tract on the east side of Main Street; these buildings still stand. Following a 10 month period of inactivity, the construction of the remaining proposed residences resumed in May 1949 and was completed by 1950.<sup>33</sup>

Starting in 1959, large areas of Yorba Linda containing orchards began to be transformed into housing tracts. Between 1957 and the mid-1960s, nearly 2,000 homes had been constructed.<sup>34</sup> Thus the town was gradually transitioning from a rural farming town into a residential community. The popularity of the automobile starting in the post-war period was the primary catalyst for this suburbanization. In 1961, plans were announced for the construction of a new highway leading south from the terminating end of Imperial Highway at Lakeview Avenue to Santa Ana Canyon Road located just south of the Santa Ana River.<sup>35</sup> Construction of the highway began the following year and was completed by the late 1960s.<sup>36</sup>

The lack of adequate parking in downtown Yorba Linda was the major factor in the decline of its Main Street during the 1960s. This led to the creation of automobile-friendly shopping centers and a gradual shift of businesses away from the downtown commercial core beginning with the construction of a shopping center at the southwest corner of Yorba Linda Boulevard and Richfield Road; the new shopping center was approximately 0.75 mile from the downtown core. The Rose-Linda Shopping Center (now Yorba Linda Center) was also built at the southeast corner of Yorba Linda Boulevard and Rose Avenue in 1965, just a few blocks east of Richfield Road in what is now the City of Placentia.

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33 *Yorba Linda Star*, "Work Commences on Nine Houses in Linda Vista Tract." May 6, 1949, 1.

34 Information obtained from the City of Yorba Linda Planning Department.

35 *Los Angeles Times*, "State to Weigh Plans for Job Along Freeway," February 5, 1961, OC4.

36 *Daily News Tribune*, "Face of Yorba Linda Changing Fast," May 28, 1962.

## 1970s and Beyond

By 1968 Yorba Linda had only a single lemon orchard and a few avocado orchards left.<sup>37</sup> With the loss of most of its orchards, the city was gradually becoming a bedroom community. Despite the changes that the city has experienced since the 1950s, Yorba Linda has retained some of its old-town feel. The downtown Main Street area remains relatively intact from its formation in the 1910s and 1920s, and there are remnants of former orchards remaining in the city; the orchards are located primarily near downtown. Yorba Linda continues to grow through the development of single-family residences along the northern border of the city near Chino Hills State Park.<sup>38</sup>

## 2. Research and Field Inventory

On January 5, 2010, the City Council adopted the “City of Yorba Linda Citywide Historic Property Survey: Historic Context & Survey Report,” Prepared for the City of Yorba Linda Community Development Department (November 2009), prepared by Galvin Preservation Associates. This report identified the properties located at

### Yorba Linda Old Town Historic District

The Historic Town Center District (locally significant district) is an early to mid-twentieth century commercial neighborhood that is centered around the 4800 and 4900 blocks of Main Street and Olinda Street in the City of Yorba Linda. It includes 16 contributing buildings and six non-contributing buildings. The district boundaries include the east side of Olinda Street to the west, Lemon Drive to the north, the east side of Main Street to the east, and the northeast side of Imperial Highway to the southwest. The boundaries exclude the parcel located at the intersection of Main Street, Imperial Highway, and Arroyo Street. The Project Site is located to the east of the Historic Town Center District. Under the Proposed Project the early twentieth-century cottages at 4842, 4852, and 4871 School Street would be demolished. The subject properties have been identified as locally eligible historical resources with a 5S3 California Historical Resources Status Code (“Status Code”) in the City’s historical resources survey.<sup>39</sup> A 5S3 Status Code is defined as “appears to be individually eligible for local listing or designation through survey evaluation.” Pursuant to CEQA §15064.5 these properties are considered historical resources.

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<sup>37</sup> *Daily News Tribune*, “Old Packing House Rich in History,” March 22, 1968.

<sup>38</sup> Properties from the 1970s and beyond were not evaluated as part of this context, since they are not at least 50 years old, and are therefore not considered potentially historic yet per the Secretary of the Interior’s definition of an historic property.

<sup>39</sup> Appendix 5.2 to this EIR, Attachment D.

## Historical Resources within the Proposed Project

4842, 4852, and 4871 School Street are single-family cottages constructed between 1910 and 1915 located on the east and west sides of School Street between Lemon Avenue to the north and Arroyo Street to the south. In September 2013, PCR surveyed the interior and exterior of 4842 and 4871 School Street and surveyed 4852 School Street from the public right-of-way. Further description of each subject property is provided below. To the west of the subject properties is the proposed Old Town Historic District (locally significant district), an early to mid-twentieth century commercial neighborhood that is centered around the 4800 and 4900 blocks of Main Street and Olinda Street.<sup>40</sup> The district boundaries include the east side of Olinda Street to the west, Lemon Drive to the north, the east side of Main Street to the east, and the northeast side of Imperial Highway to the southwest.

### 4842 School Street



Located on the east side of School Street, 4842 School Street (APN 323-322-09) is currently improved with a one-story Craftsman-style cottage constructed circa 1910s. 4842 School Street has a concrete foundation, wood frame construction, and is clad in wood clapboards. The roof is front-gable with a dropped front-gable porch roof and has exposed rafter tails and composition shingle sheathing. The partial-width front porch has Doric column supports and a decorative wood banister. The property was recognized in the 1980-81 Historic Resources Survey

(Appendix 5.2, Attachment D) wherein it was noted that the cottage was historically used in conjunction with the main school house and was moved to the present location at an unidentified date (pre-1920). The cottage at 4842 School Street is shown at its current location on the 1929 Sanborn Map (**Appendix 5.2**, Attachment C); however, the cottage is not shown on the 1920 Sanborn Map (**Appendix 5.2**, Attachment B). In 2009, as a part of the Citywide Historic Property Survey, 4842 School Street was assigned a status code of 5S3 (**Appendix 5.2**, Attachment E). Currently, 4842 School Street is used as a construction office. PCR surveyed the exterior and interior of 4842 School Street in September 2013, and the structure appears to be in good condition.

<sup>40</sup> The proposed Old Town Historic District includes 16 contributing buildings and 6 non-contributing buildings. All contributing buildings received a status code of 5D3.

### 4852 School Street



Located on the east side of School Street and to the south of 4842 School Street, 4852 School Street (APN 323-322-08) is currently improved with a one-story Craftsman-style cottage constructed in 1912.

4852 School Street has wood frame construction and a low-pitched front-gable roof with exposed purlins. The house is clad in asbestos composition shingle siding and has a partial-width front porch supported by four slender wood posts. The property was recognized in the 1980-81 Historic Resources Survey (**Appendix 5.2,**

Attachment D) wherein it was noted that the property was historically used as classrooms and was moved to its present location at an unidentified date, most likely during the 1920s. The cottage at 4852 School Street is shown at its present location on the 1929 Sanborn Map (**Appendix 5.2,** Attachment C); however, the cottage is not shown on the 1920 Sanborn Map (**Appendix 5.2,** Attachment B). In 2009, as a part of the Citywide Historic Property Survey, 4852 School Street was assigned a status code of 5S3 (**Appendix 5.2,** Attachment D). Currently, 4852 is used as a single-family residence. PCR surveyed the 4852 School Street in September 2013 from the street and was unable to assess the structure's condition.

### 4871 School Street



Located on the west side of School Street, 4871 School Street (APN 323-324-03) is currently improved with a one-story Craftsman-style cottage constructed circa 1915. 4871 School Street has a concrete foundation, wood frame construction, and is clad in wood clapboards and shingles. The roof is a low-pitched front-gable with overhanging eaves, exposed rafter tails and beams, and composition shingle sheathing. It has a partial-width front porch with two sets of

four wood posts set atop a tapered pier (stuccoed). The cottage at 4871 School Street is shown in its present location on the 1920 Sanborn Map (**Appendix 5.2,** Attachment B). In 2009, as a part of the Citywide Historic Property Survey, 4871 School Street was assigned a status code of 5S3. Currently, the property is vacant and owned by the City. PCR surveyed the exterior and interior property in September 2013 and the property appears to be in overall good condition.

### 5.2-3 Regulatory Setting

#### 1. Federal

##### National Historic Preservation Act

The National Historic Preservation Act, established in 1966, created the legislation for the creation of the National Register and the Advisory Council on Historic Preservation (Advisory Council). Section 106 of the National Historic Preservation Act (*Code of Federal Regulations*, Title 36, Part 800) requires federal agencies to take into account the effects of an undertaking on historical properties, defined as cultural resources included in or eligible for listing in the National Register of Historic Places (National Register).

The National Historic Preservation Act is the key to the evaluation of cultural resources within the United States federal regulatory frameworks. The National Register, established by the National Historic Preservation Act, includes districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, and culture.

There have been several amendments to the National Historic Preservation Act. The 1980 amendments require that the Secretary of the Interior is directed to (1) certify local historic preservation programs; (2) promulgate curation regulations, standards, and guidelines for the preservation of historic and archaeological properties; (3) develop an appeals process for nominations to the National Register; (4) develop a direct grants program for the preservation of National Register properties; and (5) develop a loan guarantee program to finance historic preservation projects. The structure of the Advisory Council was also revised to include local government and private participation. These standards are referenced in the California Environmental Quality Act (CEQA) and are relevant to the assessment of potential impacts to historic resources for this reason.

##### National Register of Historic Places

The National Register of Historic Places (National Register) is the country's master inventory of known historic resources and includes listings of buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level. The National Register criteria and associated definitions are outlined in "National Register Bulletin Number 15: How to Apply the National Register Criteria for Evaluation," which provides the following list of definitions:

- A *structure* is a work made up of interdependent and interrelated parts in a definite pattern of organization. Generally constructed by humans, it is often an engineering object large in scale.
- A *site* is defined as the location of a significant event, a prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined, or

vanished, where the location itself maintains historical or archaeological value regardless of the value of any existing structure.

- *Buildings* are defined as structures created to shelter human activity.
- A *district* is a geographically definable area – urban or rural, small or large – possessing a significant concentration, linkage, or continuity of sites, buildings, structures, and/or objects united by past events or aesthetically by plan or physical development. A district may also comprise individual elements separated geographically but linked by association or history.
- An *object* is a material thing of functional, aesthetic, cultural, historical, or scientific value that may be, by nature or design, moveable yet related to a specific setting or environment such as a historic vessel.

There are four criteria under which a structure, site, building, district, or object can be considered eligible for listing on the National Register. These include resources that are one or more of the following:

- Criterion A: Are associated with events that have made a significant contribution to the broad patterns of our history; or
- Criterion B: Are associated with the lives of persons significant in our past; or
- Criterion C: Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- Criterion D: Have yielded, or may be likely to yield, information important in prehistory or history.<sup>41</sup>

There is also a general stipulation that the resource (structure, site, building, district, and object) be at least 50 years old, although there are exceptions to that rule (see Title 36, Part 50.4 of the *Code of Federal Regulations*, Criteria Considerations a–q). Properties under 50 years of age that are of exceptional importance or are contributors to a district can also be included on the National Register. The eligibility of a cultural resource for nomination to the National Register may be based on any of the above four criteria together with their integrity.

Historical period properties are best evaluated and supported by historical research, whereas Criterion D is typically documented by archaeological investigation. Archaeologists assess sites based on all four criteria, but prehistoric sites are primarily considered under Criterion D.

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<sup>41</sup> 36 *Code of Federal Regulations*, Title 36 Part 60.4.

## Period of Significance

For any resource eligible for listing in the National Register, its period of significance must also be established. According to National Register Bulletin 16A, the period of significance is defined as the length of time that a property was associated with important events, activities, or persons, or attained the characteristics that qualify it for National Register listing. The following guidelines have been established to define the period of significance for resources meeting one or more of the four criteria of historical significance:

- Criterion A: For the site of an important event, such as a pivotal five-month labor strike, the period of significance is the time when the event occurred. For properties associated with historic trends, such as commercial development, the period of significance is the span of time when the property actively contributed to the trend.
- Criterion B: The period of significance for a property significant for Criterion B is usually the length of time the property was associated with the important person.
- Criterion C: For architecturally significant properties, the period of significance is the date of construction and/or the dates of any significant alterations and additions.
- Criterion D: The period of significance for an archeological site is the estimated time when it was occupied or used for reasons related to its importance, for example, 3000–2500 B.C.

## Integrity

In addition to meeting at least one of the above criteria, the National Register program states that, “to be eligible for listing in the National Register, a property must not only be shown to be significant under National Register criteria, but also must have integrity.” Integrity is defined in National Register Bulletin 15 as “the ability of a property to convey its significance.” Within the concept of integrity, the National Register recognizes seven aspects or qualities that in various combinations define integrity. They are feeling, association, workmanship, location, design, setting, and materials.

- Location: Location is the place where the historic property was constructed or the place where the historic event occurred.
- Design: Design is the combination of elements that create the form, plan, space, structure, and style of a property.
- Setting: Setting is the physical environment of an historic property, constituting topographic features, vegetation, manmade features, and relationships between buildings or open space.

- **Materials:** Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form an historic property.
- **Workmanship:** Workmanship is the physical evidence of the crafts of a particular culture, people, or artisan during any given period in history or pre-history.
- **Feeling:** Feeling is a property's expression of the aesthetic or historical sense of a particular period.
- **Association:** Association is the direct link between an important historic event or person and an historic property.

The National Register criteria recognize the seven aspects or qualities listed above that, in various combinations, define integrity. To retain historic integrity a property will always possess several, and usually most, of these qualities.

### Context

A property must also be significant within a historic context as the significance of a historic property can be judged only when it is evaluated within its historic context. Historic contexts are “those patterns, themes, or trends in history by which a specific ... property or site is understood and its meaning ... is made clear.”<sup>42</sup>

### Districts

Standard preservation practice evaluates collections of buildings from similar periods and historic contexts as *districts*. The National Park Service defines an historic district as “a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development.”<sup>43</sup> A historic district derives its significance as a single unified entity.

Districts comprise resources identified as either contributing or non-contributing resources. Some resources within the boundaries of the district may not meet the criteria for contributing to the historic character of the district although the resource is within the district boundaries.

Contributing resources add to the historic association, historic architectural qualities, or archaeological values for which the district is significant because the resource was present during the period of significance (the period of time during which the resource acquired its historically significant characteristics), relates to the documented significant contexts, and possesses integrity.

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<sup>42</sup> National Register Bulletin Number 15, p. 7.

<sup>43</sup> National Register Bulletin Number 15, p. 5.

Non-contributing resources do not add to the historic associations, historic architectural qualities, or archaeological values for which the district is significant because the resource was not present during the period of significance, does not relate to the documented significant contexts, or does not possess integrity.

### **The Secretary of the Interior’s Standards for Rehabilitation**

The Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings (Secretary’s Standards, or Standards) were published in 1995 and codified as 36 *Code of Federal Regulations* 67.<sup>44</sup> Neither technical nor prescriptive, these Standards promote responsible preservation practices that help protect irreplaceable cultural resources.<sup>45</sup> There are four overriding treatments discussed in the Standards: preservation, rehabilitation, restoration, and reconstruction. The Standards consist of 10 basic principles created to help preserve the distinctive character of an historic building and its site while allowing reasonable chance to meet new needs. The Standards apply to historic buildings of all periods, styles, types, materials, and sizes, and apply to both the exterior and the interior of historic buildings. The Standards also encompass related landscape features and the building’s site and environment, including attached, adjacent, or related new construction. These Standards have been adopted, or are used informally, by many agencies at all levels of government to review projects that affect historic resources, and are used as a measure in determining whether or not a project or new development or rehabilitation adversely impacts an historic resource.

The purpose of the Standards is to promote responsible preservation practices to help protect cultural resources. The Standards provide consistency in the approach to preservation historic resources. The preamble to the Standards states that they “are to be applied to specific rehabilitation projects in a reasonable manner, taking into consideration economic and technical feasibility.”

The Rehabilitation Standards are provided below:

- **Rehabilitation Standard No. 1:** A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.

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44 “Preservation” acknowledges a resource as a document of its history over time and emphasizes stabilization, maintenance, and repair of existing historic fabric. “Rehabilitation,” while also incorporating the retention of features that convey historic character, also accommodates alterations and additions to facilitate continuing or new uses. “Restoration” involves the retention and replacement of features from a specific period of significance. “Reconstruction,” the least-used treatment, provides a basis for recreating a missing resource.

45 Weeks, Kay D. and Anne E. Grimmer. 1995. *The Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstruction Historic Buildings*. Washington D.C.: U.S. Department of the Interior, National Park Service. <http://www.nps.gov/tps/standards/four-treatments/treatment-guidelines.pdf>

- **Rehabilitation Standard No. 2:** The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize the property will be avoided.
- **Rehabilitation Standard No. 3:** Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
- **Rehabilitation Standard No. 4:** Changes to a property that have acquired historic significance in their own right will be retained and preserved.
- **Rehabilitation Standard No. 5:** Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.
- **Rehabilitation Standard No. 6:** Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
- **Rehabilitation Standard No. 7:** Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
- **Rehabilitation Standard No. 8:** Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

Infill and redevelopment projects that could affect historic resources may be subject to review based on Standards 9 and 10 of the Standards, which state:

- **Rehabilitation Standard No. 9:** New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
- **Rehabilitation Standard No. 10:** New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future,

the essential form and integrity of the historic property and its environment would be unimpaired.

## 2. State

### California Register of Historical Resources

The California Register of Historical Resources (California Register)<sup>46</sup> is the authoritative guide to the state's significant historical and archeological resources. It serves to identify, evaluate, register, and protect California's historical resources. The California Register program encourages public recognition and protection of resources of architectural, historical, archeological, and cultural significance, identifies historical resources for state and local planning purposes, determines eligibility for historic preservation grant funding, and affords certain protections under CEQA. All resources listed on or formally determined eligible for the National Register are eligible for the California Register. In addition, properties designated under municipal or county ordinances are also eligible for listing in the California Register.

The California Register criteria are modeled on the National Register criteria discussed above. An historical resource must be significant at the local, state, or national level under one or more of the following criteria:

- **Criterion 1:** It is associated with events or patterns of events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; or
- **Criterion 2:** It is associated with the lives of persons important to local, California, or national history; or
- **Criterion 3:** It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values; or
- **Criterion 4:** It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, state or the nation.<sup>47</sup>

The California Register automatically includes the following:

- California properties listed or formally determined eligible for listing in the National Register of Historic Places;
- California Registered Historical Landmarks from No. 0770 onward; and

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<sup>46</sup> *California Public Resources Code* §21084.1.

<sup>47</sup> CEQA Guidelines §15064.5(a)(3).

- California Points of Historical Interest that have been evaluated by the Office of Historic Preservation and have been recommended to the State Historical Resources Commission for inclusion in the California Register

Other resources may be nominated for listing in the California Register based on the criteria stated above.

Additionally, a resource must retain historic architectural integrity in terms of location, design, setting, materials, workmanship, feeling, and association. The California Register procedures include language similar to the National Register criteria (discussed above) with regard to integrity.

As with the National Register, the minimum age criterion for the California Register is 50 years. Properties less than 50 years old may be eligible for listing on the California Register “if it can be demonstrated that sufficient time has passed to understand its historical importance.”<sup>48</sup>

### California Environmental Quality Act

Section 21084.1 of the *California Public Resources Code* provides the framework for determining whether a property is an historic resource for CEQA purposes. Public agencies conducting environmental review must consider a property a historic resource under CEQA if it is listed in, or determined to be eligible for listing in, the California Register. Historical resources included in a local register of historical resources, as defined in subdivision (k) of §5020.1, or deemed significant pursuant to criteria set forth in subdivision (g) of §5024.1, are presumed to be historically or culturally significant for purposes of CEQA, unless the preponderance of the evidence demonstrates that the resource is not historically or culturally significant.

Section 15064.5(a) of the CEQA Guidelines defines “historical resources” for purposes of environmental review to include the following:

- (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 resources, as defined in section 5020.1(k) of the Public Resources Code, or identified as significant in an historical resource survey meeting the requirements in §5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

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<sup>48</sup> *California Code of Regulations*, Chapter 11, Title 14, §4842(d) (2).

- (3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources.
- (4) The fact that a resource is not listed, or determined to be eligible for listing, in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1(j) or 5024.1.

The term "historical resource" may also apply to archaeological sites. However, for an archaeological site that does not meet the criteria for consideration as an "historical resource," a determination must be made as to whether it qualifies as a "unique archaeological resource." The CEQA statute defines "unique archaeological resource" as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- 1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- 2) Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- 3) Is directly associated with a scientifically recognized important prehistoric event or person.<sup>49</sup>

In addition to having significance, resources must have integrity for a period of significance, the date or span of time within which significant events transpired at a site, or the period in which significant individuals made their important contributions to a site. Integrity is the ability of a property to convey its significance. The seven primary aspects of integrity are location, design, setting, materials, workmanship, feeling, and association. Simply stated,

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<sup>49</sup> *California Public Resources Code* 21083.2[g].

resources must retain enough of their historical character or appearance to be recognizable as historical resources and to convey the reasons for their significance.<sup>50</sup>

If historical resources are determined to be significant and unique, then a public agency conducting environmental review must determine whether the project may result in a substantial adverse change to these historic resources. A “substantial adverse change” is defined as “demolition, destruction, relocation, or alteration of the resource such that the significance of an historical resource would be materially impaired.”<sup>51</sup> Material impairment occurs when a project:

- (A) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or
- (B) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
- (C) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.<sup>52</sup>

CEQA and CEQA Guidelines identify the Secretary of the Interior’s Standards as standards to be used in determinations of whether or not new development or rehabilitation activities adversely affect an “historical resource.” The CEQA Guidelines §15064.5(b)(3) states, “Generally, a project that follows the “Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings” or the “Secretary of the Interior’s Standards for Rehabilitation” and “Guidelines for Rehabilitating Historic Buildings”<sup>53</sup> shall be considered as mitigated to a level of less than a significant impact on the historic resource.”

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50 *California Code of Regulations* Title 14 §4852.

51 *California Public Resources Code* §5020.1(q); CEQA Guidelines §15064.5(b)(2).

52 CEQA Guidelines, §15064.5(b)(2).

53 Secretary’s Standards, Weeks and Grimmer, 1995.

According to the CEQA Guidelines, §15126.4(b)(3),

Public agencies should, whenever feasible, seek to avoid damaging effects on any historical resource of an archaeological nature. The following factors shall be considered and discussed in an EIR for a project involving such an archaeological site:

- (A) Preservation in place is the preferred manner of mitigating impacts to archaeological sites. Preservation in place maintains the relationship between artifacts and the archaeological context. Preservation may also avoid conflict with religious or cultural values of groups associated with the site.
- (B) Preservation in place may be accomplished by, but is not limited to, the following:
  - 1. Planning construction to avoid archaeological sites.
  - 2. Incorporation of sites within parks, greenspace, or other open space.
  - 3. Covering the archaeological sites with a layer of chemically stable soil before building tennis courts, parking lots, or similar facilities on the site.
  - 4. Deeding the site into a permanent conservation easement.
- (C) When data recovery through excavation is the only feasible mitigation, a data recovery plan, which makes provision for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken. Such studies shall be deposited with the California Historical Resources Regional Information Center. Archaeological sites known to contain human remains shall be treated in accordance with the provisions of Section 7050.5 of the California Health and Safety Code. If an artifact must be removed during project excavation or testing, curation may be appropriate mitigation.
- (D) Data recovery shall not be required for an historical resource if the lead agency determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the archaeological or historical resource, provided that the determination is documented in the EIR and that the studies are deposited with the California Historical Resources Regional Information Center.<sup>54</sup>

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<sup>54</sup> *California Code of Regulations* §15126.4[b][3].

## California Public Resources Code

The *California Public Resources Code* defines any unauthorized disturbance or removal of a fossil locality or remains on public land as a misdemeanor,<sup>55</sup> and requires reasonable mitigation of adverse environmental impacts that result from development of public land and affect paleontological resources.<sup>56</sup>

## Senate Bill 18

On September 29, 2004, Senate Bill 18 (SB 18)<sup>57</sup> was signed into law. This law requires local governments to consult with Native American tribes prior to making certain planning decisions and to provide notice to tribes at certain key points in the planning process. These consultation and notice requirements apply to the adoption and amendment of both general plans and specific plans.

The consultation process requires 1) that local governments send the California Native American Heritage Commission (NAHC) information on the Proposed Project and request contact information for local Native American tribes, 2) that local governments then send information on the project to the tribes that the NAHC has identified and notify them of the opportunity to consult, (3) that the tribes have 90 days to respond on whether they want to consult or not, and (4) that consultation begins if requested by a tribe and there is no statutory limit on the duration of consultation. If issues arise and consensus on mitigation cannot be reached, SB 18 allows a finding to be made that the suggested mitigation is infeasible.

The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting or mitigating impacts to cultural places. The purpose of involving tribes at these early planning stages is to allow consideration of cultural places in the context of broad local land use policy, before individual projects are reviewed by a local government.

## 3. Local

### City General Plan Historic Resources Element

The Historic Resources Element portion of the City's General Plan provides the basis for enabling legislation and policy guidance which will allow the City of Yorba Linda to effectively preserve, enhance and maintain sites and structures which have been deemed architecturally and historically significant.

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<sup>55</sup> *California Public Resources Code*, §5097.5 (Statute 1965, Chapter 1136, Paragraph 2792).

<sup>56</sup> *California Public Resources Code*, §30244 (Statute 1965, Chapter 1136, Paragraph 2792).

<sup>57</sup> SB 18 amended Section 815.3 of the *California Civil Code*; amended Sections 65040.2, 65092, 65351, 65352, and 65560 of the *California Government Code*; and added Sections 65352.3, 65352.4, and 65562.5 of the *California Government Code*.

This element lays the groundwork for a comprehensive preservation ordinance. This ordinance will ensure the City's commitment to an enforceable preservation program. The Element can help establish that it has not acted arbitrarily or unreasonably in placing restrictions on a particular district or piece of property for historic preservation purposes.

### **City of Yorba Linda's Historic Designation Criteria**

The City of Yorba Linda has established historic designation criteria to recognize, preserve, and protect historically significant structures, sites, and features that reflect elements of the City's heritage. Any structure, site, district, or natural feature may be designated as historic by the City of Yorba Linda City Council if it meets one or more the following criteria:<sup>58</sup>

- (A) It exemplifies or reflects special elements of the City's cultural, architectural, aesthetic, social, economic, political, or artistic heritage.
- (B) It is identified with persons, a business use or events significant in local, state, or national history.
- (C) It embodies distinctive characteristics of style, type, period, or method of construction, or is a valuable example of the use of indigenous materials or craftsmanship.
- (D) It is representative of the notable work of a builder, designer, or architect.
- (E) Its unique location or singular physical characteristic represents an established and familiar visual feature of a neighborhood, community or the City.
- (F) Its integrity as a natural environment or feature strongly contributes to the well being of residents of the City or the well being of a neighborhood within the City.

In addition to the evaluation of historic significance for individual properties, the surveyed properties were evaluated to determine whether or not they meet the criteria as an historic district. The City of Yorba Linda defines a local historic district as:

- (G) A geographically definable area possessing a concentration or continuity of sites, buildings, structures or objects as unified by past events or aesthetically by plan or physical development.

The Local Historic District must be significant as well as identifiable and it must meet Local Historic Designation Criteria and contain a high enough percentage of contributing buildings for the district to convey its overall historic significance.

### **City Historic Combining Zone**

In 2004, the City established a Historic Combining Zone to recognize, preserve and protect historically significant structures, sites, and features that reflect elements of the City's heritage. The historic combining zone outlined the purpose of the zone and established

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58 City of Yorba Linda, Municipal Code, Section 18.18.100, "Historic (H) Combining Zone."

historic designation criteria, designation procedures, conditional use permit requirements and outlined design standards for historic residential and commercial areas within the City. However, no historic properties or districts have been designated under the historic combining zone to date.<sup>59</sup>

#### 5.2-4 Thresholds of Significance

To assist in determining whether a project will have a significant effect on the environment, Appendix G of the CEQA Guidelines identifies criteria for conditions that may be deemed to constitute a substantial or potentially substantial adverse change in physical conditions. Specifically, Appendix G of the CEQA Guidelines (Environmental Checklist Form) lists the following items to be considered when determining whether a project may be deemed to have a significant impact on cultural resources if it would:

- a) Cause a substantial adverse change in the significance of a historical resource, as defined in §15064.5;
- b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5;
- c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature;
- d) Disturb any human remains, including those interred outside of formal cemeteries

The majority of the Project area is either currently developed or graded, and according to the General Plan EIR, there are no known archaeological resources within the Project area. Compliance with Standard Condition Planning – 06 which requires that unknown resources be adequately addressed would ensure that impacts to such resources are less than significant. Therefore, Threshold 2 is not applicable to the Project and will not be analyzed further.

There are no known archeological resources within the Project area as indicated in above. Although the potential for encountering human remains is remote, compliance with *California Health and Safety Code* §7050.5 and *California Public Resources Code* §5097.98 would ensure that any unknown human remains discovered during construction activities for subsequent development/redevelopment are adequately addressed. Therefore, Threshold 3 is not applicable to the Project and will not be analyzed further.

The Project area does not contain any unique geologic features. The majority of the Project area is either presently developed or graded, and according to the General Plan EIR there are no known paleontological resources within the Project area. However, it is possible that paleontological resources may be uncovered during subsequent development/redevelopment and construction depending on the depth of any possible excavation. Compliance with Standard Condition

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<sup>59</sup> City of Yorba Linda, "Historic (H) Combining Zone."

Planning – 07 which requires that unknown paleontological resources be adequately addressed would ensure that impacts to such resources are less than significant. Therefore, Threshold 4 is not applicable to the Project and will not be analyzed further.

### 5.2-5 Environmental Impacts

#### Impact 5.2-1 Cause a substantial adverse change in the significance of a historical resource, as defined in Section 15064.5 of the CEQA Guidelines

##### 1. Impact Analysis

Construction of the Proposed Project would require demolition of three locally eligible historical resources that are located within the Project Site, at 4842, 4852, and 4871 School Street. Impacts to the structures are analyzed individually below.

All three cottages were identified with a status code of 5S3 during the 2009 Citywide Historic Property Survey, and therefore are considered historical resources under CEQA. Under the Proposed Project, these historical resources would be demolished; therefore, the Project would result in a potentially significant impact to historical resources. However, the level of this impact would be reduced by the recordation, relocation to the site options 1 through 5 (as described below) and rehabilitation of the historical resources.

With **Mitigation Measure 5.2-1, Recordation** and **Mitigation Measure 5.2-2, Relocation and Rehabilitation** incorporated, as described below, potential impacts to historical resources would be reduced to less than significant.

However, if after 45 days there is no party willing to purchase and rehabilitate the relocated cottages per **Mitigation Measure 5.2-2, Mitigation Measure 5.2-1, Recordation**, and **Mitigation Measure 5.2-3, Salvage** would need to be implemented. Without successful completion of relocation and rehabilitation, potential impacts to historical resources would remain significant and unavoidable.

##### Cottage Relocation Options

Because the City proposes to demolish three locally eligible single-family cottages located on the Project Site, the City has provided five proposed locations for the relocation of 4842, 4852 and 4871 School Street as shown on the Cottage Relocation Options Exhibit included in **Appendix 5.2, Attachment F**. The five relocation options include the Public Library Site (also known as the Strawberry Field Site), the Altrudy Site, the Olinda Street Site, the 4861-4871 School Street Site, and relocation to undefined locations. PCR studied the current and historic setting of each site option based upon the analysis of historic maps, a site visit, and Google Street View, to select a preferred site location for the relocation of the cottages. The current and historic setting of each site option, along with an analysis of each setting's compatibility to the historic setting of the cottages, are described below. This analysis is based solely upon studying the historic setting and the current conditions. Economics, land use planning, and certain existing conditions have not been taken into consideration in evaluating the receiver sites.

### Option 1: Public Library/Strawberry Field Site

The Public Library Site (also known as the Strawberry Field Site) is located on the east-side of Lakeview Avenue between Altrudy Lane and Yorba Linda Boulevard in the middle of the block. The site is now a vacant lot. The site is located in a neighborhood predominantly improved with Contemporary style one- and two-story single- and multi-family residences. Adjacent to the Public Library Site to the north is a two-story Contemporary style senior living apartment building, and to the south are office uses, a parking lot, and a strip mall. Across the street, the block is partially improved with 2 one-story early-twentieth century bungalows (with the exception of the real estate office at 4901 Lakeview Avenue); however, these bungalows will be redeveloped as part of the Proposed Project and would be replaced with a theater. These bungalows are not historical resources, and during the 2009 Citywide Historic Property Survey they were assigned Status Codes of 6L, “determined ineligible for local listing or designation through local government review process, but may warrant special consideration in local planning.”

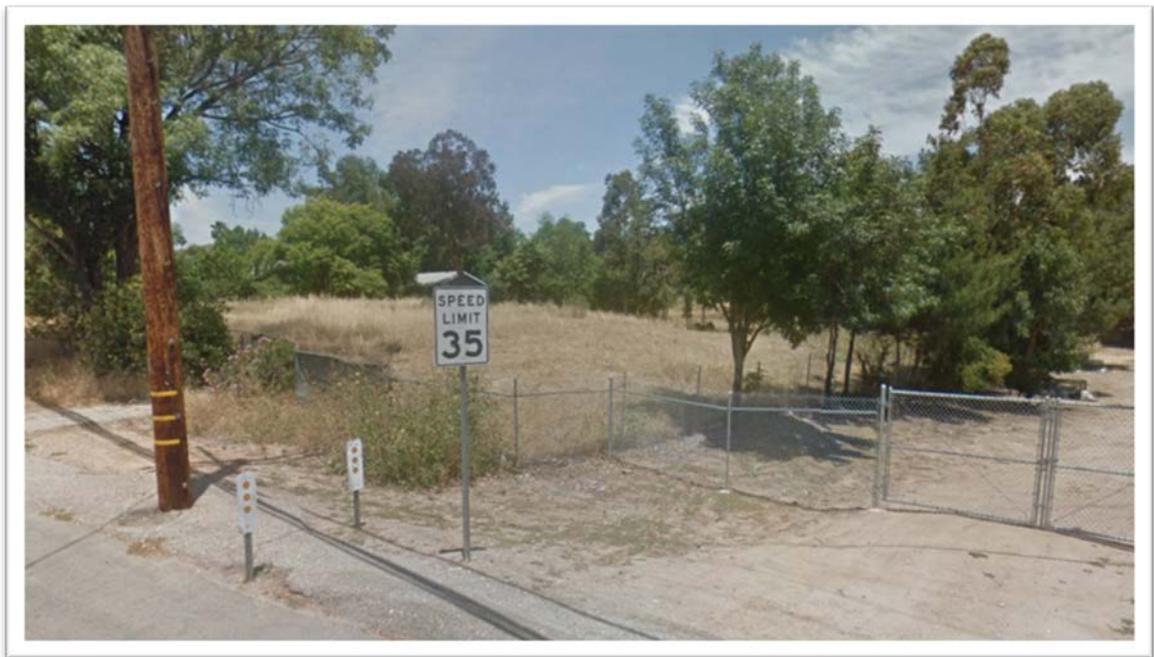
Early Sanborn maps for the Public Library/Strawberry Field Site were not mapped, most likely this area was not subdivided or improved during the early twentieth century. Because of the contemporary construction surrounding the site, it appears the vicinity of Public Library/ Strawberry Field Site was most likely improved during the 1980s and onward. According to City sources, the subject property was used as a field for the cultivation of strawberries and for a residential home site. Therefore, the Public Library/Strawberry Field Site does not have a compatible historical setting to the cottages and is not a preferred relocation site.



**Strawberry Field Site (Google, recorded June 2011)**

### Option 2: Altrudy Site

Located approximately 0.20 mile to the northeast of the cottages, the Altrudy Site is located at the northeast intersection of Lakeview Avenue and Altrudy Lane in a neighborhood predominantly improved with Contemporary style one-and-two story single-and-multi-family residences. However, adjacent to the Altrudy Site to the south is a Contemporary style two-story office park. The site is currently a vacant lot. The historical setting of the site is not documented in Sanborn Maps, as they did not record the subject property and vicinity. It can be concluded based on the non-representation on Sanborn Maps and the improvements in the immediate vicinity that the area was developed after World War II. Therefore, the Altrudy Site does not have a compatible historical setting to the cottages and is not a preferred relocation site.



Google Street View of Altrudy Site, View Northeast (Google, recorded June 2011)

### Option 3: Olinda Street Site

The Olinda Street Site is a public parking lot located on the east side of Olinda Street mid-block between Lemon Drive and Imperial Highway. As a non-contributing parcel located within the Old Town Historic District, the east side of Olinda Street is improved with a number of historic properties both commercial and residential. To the north of the Olinda Street Site at the southeast corner of Olinda Street and Lemon Drive is a single-family Mediterranean style bungalow (Dr. Cochran's House), to the south is a Mediterranean style two-story commercial building, and farther down the block to the south is a one-story Craftsman style bungalow (Dr. Emory's building) adapted into a hair salon. Dr. Emory's building is also a former schoolhouse cottage. Across the street

from the site is the Contemporary style Yorba Linda Public Library. The 1929 Sanborn Map (**Appendix 5.2**, Attachment C) shows the site comprised six lots of which five were vacant and the last (southern) lot was developed with a one-story commercial building for cleaning and pressing and two rear dwellings. All of these improvements have been removed from the site. Also, the 1929 Sanborn Map shows two historic buildings flanking the site, Dr. Cochran's House and the Mediterranean style two-story commercial building, both extant.

The Olinda Street Site appears to be a compatible site for the relocation of the three cottages. Located approximately 0.10 mile to the northwest or one block, the site is located within an historic district and is compatible to the original character of the historical cottages. Adjacent historical resources are single-family residences, one of which is a relocated school house. Of the five relocation options, PCR recommends relocating the cottages to the Olinda Street Site and adding the relocated cottages to the historic district as contributors.

#### **Option 4: 4861-4871 School Street Site**

The fourth option for the location for two of the cottages is the 4861-4871 School Street Site. This site comprises two parcels and is improved with the Craftsman style cottage at 4871 School Street, in addition to adjoining another vacant City-owned property with the address of 4861 School Street. The residence at 4861 School Street previously was demolished, and was not considered an historic resource.

However, the 4861-4871 School Street Site can only accommodate the relocation of two cottages because the total square footage of the site is much smaller than the other three site options. 4871 School Street would remain on its lot, and only one of the other two cottages, either 4842 or 4852 School Street, would be relocated to the second parcel. The City proposes to re-grade the site, re-orienting the existing 4871 cottage to face south (along New Street "A"), and then moving one additional cottage (either 4852 or 4842 School Street) to the site, oriented to front New Street "A." The two cottages could then be used for either commercial office or residential use.

Option 4 is not preferable, because only two of the cottages would be relocated, and the last cottage would be relocated to one of the other four site options (Options 1 to 5). It is preferable to keep all the cottages together, as they would collectively retain their integrity of feeling, association, and setting. Even though 4871 School Street will remain on its original site and will retain the same general location, the cottage will be reoriented and the site will be graded. The siting of the 4871 School Street on a hill is important to its overall design, and its orientation facing School Street facing the other residences across the street contributes to its significance. Furthermore, the Project will be constructed across from the 4861-4871 School Street Site, altering the historic

character of the residential street. Because of these factors the 4861-4871 School Street Site is not the preferred site relocation option.



**View of 4861-4871 School Street Site, View Southwest (PCR 2013)**

### **Option 5: Relocation to an Undefined Location**

The final option is relocation to an undefined location based upon the preferences of the interested acquisition party. This other site could be located within the City or in a neighboring community. The compatibility of the site would need to be analyzed at the time of acquisition to ensure the undefined location would be compatible to the historical character of the cottages. It would be preferable if the site was located within the City and within a single-family residential area developed during the 1920s. Because of the unknowns associated with this site relocation option and further analysis it requires, this option is not recommended.

### **Summary of Cottage Relocation Options**

Of the five site relocation options, Option 3, the Olinda Street Site, is recommended as the preferred relocation site, because all three of the cottages will be relocated to one site with a compatible historical setting. If Option 3, the Olinda Street Site, is not a feasible option, PCR recommends the relocation of the cottages to Option 1, the Public Library/Strawberry Field Site, or Option 2, the Altrudy Site. Even though the latter sites do not have compatible historical settings, the alternative sites can accommodate all three cottages, and the cottages will remain in the City of Yorba Linda less than a mile

away from their current location. Therefore, under Options 1, 2 or 3 potential impacts to 4842, 4852 and 4871 School Street would be reduced to less than significant with the incorporation of mitigation (Mitigation Measure 5.2-1, Recordation and Mitigation Measure 5.2-2, Relocation and Rehabilitation), as described below.

## 2. Level of Significance Before Mitigation

Potentially significant and unavoidable.

### 5.2-6 Mitigation Measures

CEQA requires the Lead Agency (i.e., the City of Yorba Linda) to examine and impose feasible mitigation measures or feasible project alternatives that would avoid or minimize any impacts or potential impacts to the environment. When important historical resources are involved, avoidance or preservation in place is the preferable course of action. When total avoidance or preservation in place is not possible, a hierarchy of treatment approaches should be examined and assessed for feasibility. Such treatment approaches may include relocation, partial retention, or reconstruction. Under CEQA, demolition of an historical resource with recordation as a mitigation measure does not necessarily fully mitigate an impact to the historical resource, as recordation does not address the adverse material change resulting from the removal of the physical characteristics that justify the inclusion of the resource in the California Register or its eligibility for listing in a local register. As for relocation of a historic resource, the California Historical Resources Commission encourages the retention of historical resources in place. However, it is recognized that moving a historic building, structure, or object is sometimes necessary to prevent its destruction. Therefore, a moved resource that is otherwise eligible may be listed in the California Register and/or the local register if it was moved to prevent its demolition at its former location and if the new location is compatible with the original character of the historic resource. An historic resource should retain its historic features and compatibility in orientation, setting, and general environment.

**MM 5.2-1 Recordation.** Prior to the issuance of a relocation permit for 4842, 4852 and 4872 School Street, a recordation document prepared in accordance with Historic American Buildings Survey (HABS) Level III requirements shall be completed for the existing buildings. Similarly, 4842, 4852, and 4871 School Street shall be recorded prior to relocation and demolition, to record the structures at their existing locations before removal. The recordation document shall be prepared by a qualified architectural historian or an historic preservation professional who satisfies the Secretary of the Interior's Professional Qualification Standards for Architectural History pursuant to 36 CFR 61. This recordation document shall include a historical narrative on the architectural and historical importance of the Craftsman bungalow style, the construction history of each building, the history of occupancy and use, the association as a school building and with the other bungalows on School Street (4832, 4842 and

4852 School Street) used as school buildings, and shall record the existing appearance of each building in professional large format photographs. The building exteriors, representative interior spaces, character-defining features, as well as the property setting and contextual views shall be documented. All documentation components shall be completed in accordance with the Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation (HABS standards). Copies of the completed report shall be distributed to the South Central Coastal Information Center at the California State University, Fullerton, City of Yorba Linda Planning Department, and the City of Yorba Linda Public Library Special Collections (main branch).

**MM 5.2-2 Relocation and Rehabilitation.** Since retention of the cottages located at 4842, 4852 and 4871 School Street is not feasible for implementation and development of the Proposed Project, they will first be recorded (see Mitigation Measure MM 5.2-1, Recordation) prior to relocation to an appropriate off-site location with compatible setting and association qualities. As discussed above, PCR recommends the relocation of the three cottages to the Olinda Street Site. If Option 3 (the Olinda Street Site) is not a feasible option for relocation, Option 1 (Public Library/Strawberry Field Site) or Option 2 (Altrudy Site) would be feasible alternatives, and impacts would be reduced to less than significant. Implementation of this measure will be satisfied in part by advertisement of the structure's availability in historic preservation websites such as HistoricForSale, Historic Properties, Old Houses, and Preservation Directory and a local newspaper such as the Orange County Register for a period of not less than thirty (30) days by the Applicant. Any such relocation efforts shall be undertaken in accordance with a Relocation and Rehabilitation Plan prepared by the party taking possession of the structure to be moved. The Relocation and Rehabilitation Plan shall be developed in conjunction with a qualified architectural historian, historic architect, or historic preservation professional who satisfies the Secretary of the Interior's Professional Qualifications Standards for History, Architectural History, or Architecture, pursuant to 36 CFR 61. The Plan shall include relocation methodology recommended by the National Park Service, which are outlined in the booklet entitled "Moving Historic Buildings," by John Obed Curtis (1979), as included in Appendix 5.2 Attachment F. Upon relocation of the structure to the new site, any maintenance, repair, stabilization, rehabilitation, preservation, conservation, or reconstruction work performed in conjunction with the relocation of the building shall be undertaken in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Properties and the Town Center Specific Plan guidelines (as applicable). The Relocation and Rehabilitation Plan shall be reviewed and approved by the City of Yorba Linda Planning Department prior to its implementation. Any subsequent alterations of the property requiring a building permit would be subject to the standards and principles outlined in the City's Historic Combining Zone. In addition, a plaque describing the date of the move and the original location shall be placed in a visible location on each of the buildings.

If after 45 days it is evident that no party is interested in purchasing one or all of the building(s) per the mitigation measure stipulated above, then Mitigation Measure MM 5.2-3 would be required to document and salvage the key character-defining physical features of the cottages.

MM 5.2-3 **Salvage.** Prior to demolition, key character-defining physical features of the cottages (e.g., window elements, shingling) shall be made available for use in restoration/rehabilitation projects for 4842, 4852 and 4871 School Street, or within the neighborhood or the City of Yorba Linda. These salvaged features may also be donated for curatorial and/or educational purposes to a local historical society, preservation organization, or the like. Unsound, decayed, or toxic materials (e.g. asbestos) need not be included in the salvage process. The salvage materials shall be advertised for a period of not less than 30 days in historic preservation websites and the Orange County Register, as well as by posting on the Project Site itself and by other means as deemed appropriate. Salvage efforts shall be conducted by the Applicant. These efforts shall be documented in writing by summarizing all measures taken to encourage receipt of salvage materials by the public. Copies of notices, evidence of publication of such notices, along with a summary of results from the publicity efforts, a list of salvage offers (if any) that were made, and an explanation of why the features were not or could not be accepted shall be included in this salvage summary document. This document shall be filed by the Applicant with the City of Yorba Linda Planning Department.

### Level of Significance After Mitigation

With the relocation of the cottages to Options 1, 2, or 3 and the incorporation of **Mitigation Measure 5.2-1, Recordation** and **Mitigation Measure 5.2-2, Relocation and Rehabilitation**, as described above, potential impacts to 4842, 4852 and 4871 School Street would be reduced to less than significant.

If after 45 days there is no party willing to purchase and rehabilitate the cottages at 4842, 4852, and 4871 School Street, **Mitigation Measure 5.2-3, Salvage** would need to be implemented. However, without successful completion of relocation and rehabilitation of all three cottages, potential impacts to historical resources would remain significant and unavoidable.

### 5.2-7 General Plan Consistency

Implementation of the Proposed Project would be subject to the policies set forth in the City of Yorba Linda General Plan. **Table 5.2-1, Consistency with the General Plan**, outlines the applicable policies the City's General Plan and the Proposed Project's consistency with each of these policies. As shown, the Proposed Project would be consistent with all the applicable General Plan policies.

**Table 5.2-1 Consistency with the General Plan**

Policy	Project Consistency/Comment
<b>Goal 1: Establish a downtown “town center” area that protects and enhances historic, architectural and cultural resources.</b>	
<b>Policy 1.1:</b> Encourage the preservation, maintenance, enhancement and reuse of existing historic building in redevelopment and commercial areas.	<b>Consistent.</b> The project Specific Plan contains design guidelines that ensure the Project would be compatible with existing on-site and adjacent uses, while encouraging the preservation of existing historical character of the Project area and discouraging misuse, disrepair and demolition of existing historical structures. The Project would incorporate protections for historic buildings and structures and encourage adaptive reuse.
<b>Policy 1.2:</b> Require design standards for commercial buildings and signs to be historically authentic.	<b>Consistent.</b> The project Specific Plan contains design guidelines that ensure the Project would be compatible with existing on-site and adjacent uses, while encouraging the preservation of existing historical character of the Project area and discouraging misuse, disrepair and demolition of existing historical structures. Chapter 3 (Land Use and Urban Form) provides design policies for commercial buildings and signs to be historically authentic as applicable. The Project would incorporate protections for historic buildings and structures and encourage adaptive reuse.
<b>Policy 1.3:</b> Require new projects in historically significant areas to complement the design of other historically significant structures in the area.	<b>Not applicable.</b> The proposed Town Center Project is not designated within a historically significant area. Additionally, mitigation measures will be implemented that should structures not be relocated they will be recorded and salvaged.
<b>Policy 1.4:</b> Develop programs in the areas of tax relief, exemption of building permit fee payments, transfer of development rights, and building code relaxation as they apply to historic building and districts.	<b>Not applicable.</b> The Town Center Project is a part of the previously approved Specific Plan which provides development guidelines for downtown Yorba Linda. The City is responsible for developing programs in the areas of tax relief, transfer of development rights, and building code relaxation.
<b>Policy 1.5:</b> Consider the establishment of a program to relocate reusable older buildings into the downtown redevelopment area as a means of historic preservation.	<b>Not applicable.</b> The Town Center Project includes the downtown area of Yorba Linda and would therefore not relocate older buildings to this area.
<b>Policy 1.6:</b> Utilize the Redevelopment Agency as a vehicle for preservation activity.	<b>Not applicable.</b> The proposed Town Center Project is a part of the previously approved Specific Plan that provides policies and development guidelines within the downtown area of Yorba Linda. As of this time the Redevelopment Agency has not been involved with the Proposed Project.
<b>Policy 1.7:</b> Require that a City Council review be conducted on demolition permit applications for buildings designated or potentially eligible for designation as historic structures.	<b>Applicable.</b> The Town Center Project may require demolition of the properties located at 4842 and 4871 School Street. A demolition permit would be required for 4852 School Street.
<b>Policy 1.8:</b> Allow public input on demolition permit applications, rehabilitation projects, and alternation to structures potentially eligible for listing on the National Register of Historic Places.	<b>Applicable.</b> The Town Center Project is under review as a Subsequent EIR that inherently requires public comment and review. Therefore, it allows and involves public input on demolition permit applications.
<b>Goal 2: Preserve, protect and restore significant architectural and historical sites, structures and districts in the City.</b>	
<b>Policy 2.1:</b> Provide incentives for owners of historic resources to maintain and/or enhance their properties in a manner that will conserve the integrity of such resources in the best possible condition.	<b>Consistent.</b> The previously approved Specific Plan (of which the Town Center Project is a part) contains design guidelines that ensure the Project would be compatible with existing on-site and adjacent uses, while encouraging the preservation of existing historical character of the Project area and discouraging misuse, disrepair and demolition of existing

Policy	Project Consistency/Comment
	historical structures. It would not provide incentives for owners, as that would be at the City's discretion.
<b>Policy 2.2:</b> Require appropriate adaptive reuse of historic resources in the Historic Downtown and Park Avenue/Park Place neighborhoods to prevent misuse, disrepair, and demolition.	<b>Consistent.</b> The previously approved Specific Plan (of which the Town Center Project is a part) provides mechanisms and development guidelines to encourage the preservation of structures that are designated as eligible for local significance either through the contribution to an eligible historic district or are eligible individually
<b>Policy 2.3:</b> Implement Preservation Mechanisms designating any site, structure, district area deemed to be of local, historical, architectural, or cultural significance.	<b>Consistent.</b> The previously approved Specific Plan (of which the Town Center Project is a part) contains design guidelines that ensure the Project would be compatible with existing on-site and adjacent uses, while encouraging the preservation of existing historical character of the Project area.
<b>Policy 2.4:</b> Insure historic protection in the Historic Downtown, the Park Avenue/Park Place neighborhood and selected areas with historic character but which do not meet the criteria of a historic district.	<b>Consistent.</b> The previously approved Specific Plan (of which the Town Center Project is a part) contains design guidelines that ensure the Project would be compatible with existing on-site and adjacent uses, while encouraging the preservation of existing historical character of the Project area and discouraging misuse, disrepair and demolition of existing historical structures.
<b>Policy 2.5:</b> Require that all City-owned properties containing or adjacent to historic resources are maintained in a manner that is aesthetically and/or functionally compatible with such resources.	<b>Consistent.</b> The previously approved Specific Plan (of which the Town Center Project is a part) provides mechanisms and development guidelines to encourage the preservation of structures, private or City-owned, in a manner that would be compatible with the surrounding locally eligible historic structures.
<b>Policy 2.6:</b> Ensure that potential development projects in Historical Preservation Ordinance Zones and in areas adjacent to designated historic resources are subject to a design review process.	<b>Consistent.</b> The previously approved Specific Plan (of which the Town Center Project is a part) provides mechanisms and development guidelines to encourage the preservation of structures that are designated as eligible for local significance either through the contribution to an eligible historic district or are eligible individually. An area adjacent to the previously approved Specific Plan (of which the Town Center Project is a part) would include the Park Avenue/Park Place which is eligible for the National Register of Historic Places. Therefore, potential development projects within the proposed Specific Plan are subject to a design review process which would involve adjacent areas like the Park Avenue/Park Place district.
<b>Policy 2.7:</b> Cooperate with local historic preservation organizations doing preservation work and serve as liaison for such groups.	<b>Not applicable.</b> The proposed Town Center Project would not serve as a liaison.
<b>Policy 2.8:</b> To support the heritage of the City, facilitate maintenance and appropriate historical markers for the Yorba Family Cemetery, located outside of the incorporated City boundary.	<b>Not applicable.</b> The proposed Town Center Project is located in downtown Yorba Linda within the incorporated City boundary.

### 5.2-8 Cumulative Impacts

Impacts upon historical resources tend to be site-specific and are assessed on a site-by-site basis. Where resources exist, implementation of cumulative development in the region would represent an incremental adverse impact to historical resources. However, provided that proper mitigation is

implemented in conjunction with development of related projects in the City of Yorba Linda, no significant cumulative impacts are anticipated.

Development of the Citywide projects identified in **Section 4, Cumulative Impact Analysis** would also require grading and excavation that could potentially affect archaeological or paleontological or human remains. The cumulative effect of these projects would contribute to the loss of subsurface cultural resources, if these resources are not protected upon discovery. CEQA requirements for protecting archaeological and paleontological resources or human remains are applicable to development in the City of Yorba Linda, as are local cultural resource protection ordinances. Because subsurface cultural resources are protected upon discovery as required by law, impact to those resources would be less than significant. The Proposed Project includes several standard conditions (as identified in the NOP/Initial Study for the Proposed Project) that would reduce the Project's impact to cultural resources to less than significant. Consequently, the Project contribution to any cumulative impacts associated with these resources would not be cumulatively considerable and are therefore less than significant.

#### **5.2-9 Significant Unavoidable Impacts**

If after 45 days there is no party willing to purchase and rehabilitate the cottages at 4842, 4852, and 4871 School Street, **Mitigation Measure MM 5.2-3, Salvage** would need to be implemented. However, without successful completion of relocation and rehabilitation of all three cottages, potential impacts to historical resources would remain significant and unavoidable.

## 5.3 Global Climate Change

### 5.3-1 Introduction

This section provides a discussion of global climate change, existing regulations pertaining to global climate change, an inventory of the approximate greenhouse gas (GHG) emissions that would result from the Project, and an analysis of the significance of the impact of these GHGs. This analysis of global climate change was based upon the “Greenhouse Gas Emissions Technical Report” prepared by Pomeroy Environmental Services, dated May 2015.

### 5.3-2 Existing Conditions

#### 1. General Terms and Scientific Literature

Earth’s natural warming process is known as the “greenhouse effect.” This greenhouse effect compares the Earth and the atmosphere surrounding it to a greenhouse with glass panes. The glass allows solar radiation (sunlight) into Earth’s atmosphere, but prevents radiative heat from escaping, thus warming Earth’s atmosphere. GHGs keep the average surface temperature of the Earth to approximately 60 degrees Fahrenheit. However, excessive concentrations of GHGs in the atmosphere can result in increased global mean temperatures, with associated adverse climatic and ecological consequences.

Scientists studying the particularly rapid rise in global temperatures have determined that human activity has resulted in increased emissions of GHGs, primarily from the burning of fossil fuels (such as during motorized transport, electricity generation, consumption of natural gas, industrial activity, and manufacturing), deforestation, agricultural activity, and the decomposition of solid waste.

Scientists refer to the global warming context of the past century as the “enhanced greenhouse effect” to distinguish it from the natural greenhouse effect.<sup>60</sup> While the increase in temperature is known as “global warming,” the resulting change in weather patterns is known as “global climate change.” Global climate change is evidenced in changes to wind patterns, storms, precipitation, and air temperature.

#### Acronyms used in this section:

AEP	Association of Environmental Professionals
AQMP	Air Quality Management Plan
BAU	business as usual
CAA	Clean Air Act
Cal/EPA	California Environmental Protection Agency
CARB	California Air Resources Board
CAT	Climate Action Team
CCAR	California Climate Action Registry
CEC	Commission for Energy Commission
CEQA	California Environmental Quality Act
CCTP	Climate Change Technology Program
cy	cubic yards
EIR	Environmental Impact Report
EISA	Energy Independence and Security Act
EPA	U.S. Environmental Protection Agency
g/mi	grams per mile
GHG	greenhouse gases
GWP	global warming potential
MPO	Metropolitan Planning Organization
NHTSA	National Highway Traffic Safety Administration
NSPS	New Source Performance Standards <i>[of the CAA]</i>
OPR	Office of Planning and Research
PSD	Prevention of Significant Deterioration
RTP	Regional Transportation Plan
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCS	Sustainable Community Strategies
TDM	Transportation Demand Management
VMT	vehicle miles traveled

60 “Climate Change 101: Understanding and Responding to Global Climate Change,” published by the Pew Center on Global Climate Change and the Pew Center on the States.

## 2. GHG Components

GHGs include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF<sub>6</sub>), and nitrogen trifluoride.<sup>61</sup> A general description of each GHG discussed in the GHG Emissions Technical Report is provided in **Table 5.3-1** below. CO<sub>2</sub> is the most abundant GHG. Other GHGs are less abundant, but have higher global warming potential (GWP) than CO<sub>2</sub>. Thus, emissions of other GHGs are frequently expressed in the equivalent mass of CO<sub>2</sub>, denoted as CO<sub>2</sub>e. Forest fires, decomposition, industrial processes, landfills, and consumption of fossil fuels for power generation, transportation, heating, and cooking are the primary sources of GHG emissions.

**Table 5.3-1 Description of Identified Greenhouse Gases**

Greenhouse Gas	General Description
CO <sub>2</sub>	CO <sub>2</sub> is an odorless, colorless GHG, which has both natural and manmade sources. Natural sources include the following: decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing; man made sources of CO <sub>2</sub> are burning coal, oil, natural gas, and wood.
CH <sub>4</sub>	CH <sub>4</sub> is a flammable gas and is the main component of natural gas. When one molecule of CH <sub>4</sub> is burned in the presence of oxygen, one molecule of CO <sub>2</sub> and two molecules of water are released. There are no ill health effects from CH <sub>4</sub> . A natural source of CH <sub>4</sub> is the anaerobic decay of organic matter. Geological deposits, known as natural gas fields, also contain CH <sub>4</sub> , which is extracted for fuel. Other sources are from landfills, fermentation of manure, and cattle.
N <sub>2</sub> O	N <sub>2</sub> O is a colorless GHG. High concentrations can cause dizziness, euphoria, and sometimes slight hallucinations. N <sub>2</sub> O is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used in rocket engines, race cars, and as an aerosol spray propellant.
HFCs	HFCs are synthetic man-made chemicals that are used as a substitute for chlorofluorocarbons (CFCs) for automobile air conditioners and refrigerants. CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the Earth's surface). CFCs were first synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. Because they destroy stratospheric ozone, the production of CFCs was stopped as required by the Montreal Protocol in 1987.
PFCs	PFCs have stable molecular structures and do not break down through the chemical processes in the lower atmosphere. High-energy ultraviolet rays about 60 kilometers above the Earth's surface are able to destroy the compounds. PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane and hexafluoroethane. The two main sources of PFCs are primary aluminum production and semiconductor manufacture.
SF <sub>6</sub>	SF <sub>6</sub> is an inorganic, odorless, colorless, non-toxic, and nonflammable gas. SF <sub>6</sub> is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

Source: Association of Environment Professionals, Alternative Approaches to Analyze Greenhouse Gas Emissions and Global Climate Change in CEQA Documents, Final, June 29, 2007.

61 As defined by California Assembly Bill (AB) 32 and Senate Bill (SB) 104.

### 3. Global Warming Potential

Global warming potential (GWP) is one type of simplified index based upon radiative properties that is used to estimate the potential future impacts of emissions of different gases upon the climate system in a relative sense. GWP is based on a number of factors, including the radiative efficiency (heat-absorbing ability) of each gas relative to that of CO<sub>2</sub>, as well as the decay rate of each gas (the amount removed from the atmosphere over a given number of years) relative to that of CO<sub>2</sub>. A summary of the atmospheric lifetime and GWP of selected gases is presented at **Table 5.3-2** below.

**Table 5.3-2 Atmospheric Lifetimes and Global Warming Potentials**

Pollutant	Lifetime (Years)	Global Warming Potential (20-Year)	Global Warming Potential (100-Year)
Carbon Dioxide	100	1	1
Nitrous Oxide	121	264	265
Nitrogen Trifluoride	500	12,800	16,100
Sulfur Hexafluoride	3,200	17,500	23,500
Perfluorocarbons	3,000-50,000	5,000-8,000	7,000-11,000
Black Carbon	days to weeks	270-6,200	100-1,700
Methane	12	84	28
Hydrofluorocarbons	Uncertain	100-11,000	100-12,000

Source: CARB, First Update to the Climate Change Scoping Plan, May 2014.

### 4. Projected Impacts of Global Warming in California

The primary effect of rising global concentrations of atmospheric GHG levels is a rise in the average global temperature of approximately 0.2 degrees Celsius per decade, determined from meteorological measurements worldwide between 1990 and 2005. Climate change modeling using 2000 emission rates shows that further warming is likely to occur given the expected rise in global atmospheric GHG concentrations from innumerable sources of GHG emissions worldwide, which would induce further changes in the global climate system during the current century.<sup>62</sup> Adverse impacts from global climate change worldwide and in California include:

- Declining sea ice and mountain snow peak levels, thereby increasing sea levels and sea surface evaporation rates with a corresponding increase in atmospheric water vapor due to the atmosphere's ability to hold more water vapor at higher temperatures;<sup>63</sup>
- Rising average global sea levels primarily due to thermal expansion and the melting of glaciers, ice caps, and the Greenland and Antarctic ice sheets;<sup>64</sup>
- Changing weather patterns, including changes to precipitation, ocean salinity, and wind patterns, and more energetic aspects of extreme weather including droughts, heavy precipitation, heat waves, extreme cold, and the intensity of tropical cyclones;<sup>65</sup>

62 US EPA, Draft Endangerment Finding, 74 Federal Regulations 18886, 18904, April 24, 2009.

63 Ibid.

64 IPCC, Climate Change, 2007.

- Declining Sierra Mountains snowpack levels, which account for approximately half of the surface water storage in California, by 70% to as much as 90% over the next 100 years;<sup>66</sup>
- Increasing the number of days conducive to ozone formation (e.g., clear days with intense sun light) by 25% to 85% (depending on the future temperature scenario) in high O<sub>3</sub> areas located in the Southern California area and the San Joaquin Valley by the end of the 21<sup>st</sup> Century;<sup>67</sup> and
- Increasing the potential for erosion of California’s coastlines and seawater intrusion into the Sacramento Delta and associated levee systems due to the rise in sea level.<sup>68</sup>

## 5. Existing Statewide Greenhouse Gas Emissions

California is the fifteenth largest emitter of GHG on the planet, representing about 2% of the worldwide emissions.<sup>69</sup> **Table 5.3-3** shows the California GHG emissions inventory for years 2003 to 2012. Statewide GHG emissions slightly decreased in 2009 due to a noticeable drop in on-road transportation, electricity generation, and industrial emissions.

In 2012, total GHG and per capita emissions increased for the first time, albeit only by a single percentage point, in the last five years. This increase was driven primarily by strong economic growth in the state, the unexpected closure of the San Onofre Nuclear Generating Station, and drought conditions that limited in-state hydropower.

**Table 5.3-3 California Greenhouse Gas Emissions Inventory**

Sector	CO <sub>2</sub> e Emissions (Million Metric Tons)									
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Transportation	184	187	189	189	189	178	171	170	168	167
Electric Power	113	115	108	105	114	120	101	90	88	95
Commercial and Residential	42	43	41	42	42	42	43	44	44	42
Industrial	93	94	92	90	87	88	85	89	88	89
Recycling and Waste	8	8	8	8	8	8	8	8	8	8
Agriculture	37	36	37	38	37	38	36	36	36	38
High Global Warming Potential	9	10	10	11	12	13	14	16	17	18
Emissions Total	<b>486</b>	<b>493</b>	<b>485</b>	<b>483</b>	<b>489</b>	<b>487</b>	<b>458</b>	<b>453</b>	<b>449</b>	<b>457</b>

Source: CARB, California Greenhouse Gas Inventory 2003-2012, August 1, 2013.

65 Ibid.

66 Cal/EPA, Climate Action Team, Climate Action Team Report to Governor Schwarzenegger and the Legislature, 2006.

67 Ibid.

68 Ibid.

69 CARB, Climate Change Scoping Plan, December 2008.

California's gross emissions of GHG decreased by 1.6% from 466.3 million metric tons of CO<sub>2e</sub> in 2000 to 458.7 million in 2012, with a maximum of 492.7 million metric tons in 2004. During the same period, California's population grew by 11% from 34 million to 37.8 million people. As a result, California's per capita GHG emissions have generally decreased over the last 12 years from 13.7 metric tons per person in 2000 to 12.1 metric tons of CO<sub>2e</sub> per person in 2012.

Emissions from sectors other than electricity remained relatively constant from 2011, and the GHG carbon intensity of California's economy continued to decline in 2012. Beginning in 2013, California's Cap-and-Trade program will ensure that emissions continually decline, even alongside stronger economic growth and potentially drier hydrological conditions, and in the event of any additional unforeseen circumstances.

### 5.3-3 Regulatory Setting

#### 1. Federal

With regard to GHG emissions and global climate change, in 2002, President George W. Bush set a national policy goal of reducing the GHG emission intensity (tons of GHG emissions per million dollars of gross domestic product) of the nation's economy by 18% by 2012. No binding reductions were associated with the goal. The United States instead opted for a voluntary and incentive-based approach toward GHG emissions reductions, identified as the Climate Change Technology Program (CCTP). CCTP is a multi-agency research and development coordination effort, led by the Secretaries of Energy and Commerce.

The U.S. Supreme Court ruled in *Massachusetts v. Environmental Protection Agency*, 127 S. Ct. 1438 (2007), that CO<sub>2</sub> and other GHGs are pollutants under the federal Clean Air Act (CAA), which the United States Environmental Protection Agency (US EPA) must regulate if it determines they pose an endangerment to public health or welfare. On December 7, 2009, US EPA Administrator made two distinct findings: 1) the current and projected concentrations of the six key GHGs in the atmosphere (i.e., CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, and SF<sub>6</sub>) threaten the public health and welfare of current and future generations; and 2) the combined emissions of these GHGs from motor vehicle engines contribute to GHG pollution, which threatens public health and welfare.

US EPA subsequently published its endangerment finding for GHGs in the Federal Register. The US EPA Administrator determined that six GHGs, taken in combination, endanger the public health and welfare of current and future generations. Although the endangerment finding discusses the effects of six GHGs, it acknowledges that transportation sources only emit four of the key GHGs: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, and HFCs. Further, the US EPA Administrator found that the combined emissions of these GHGs from new motor vehicles contribute to air pollution that endangers the public health and welfare under the CAA, Section 202(a).

US EPA requires large emitters of GHG to collect and report data. Fossil fuel and industrial GHG suppliers, motor vehicle and engine manufacturers, and facilities that emit 25,000 metric tons or

more of CO<sub>2</sub> equivalent per year to report GHG emissions annually data to US EPA. The Rule is referred to as 40 *Code of Federal Regulations* (CFR) Part 98-Greenhouse Gas Reporting Program.

### **Energy Independence and Security Act (EISA)**

In response to the *Massachusetts v. Environmental Protection Agency* ruling, the Bush Administration issued an executive order on May 14, 2007, directing US EPA, the United States Department of Transportation, and the United States Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. On December 19, 2007, the EISA was signed into law, which requires an increased corporate average fuel economy (CAFE) standard of 35 miles per gallon (mpg) for the combined fleet of cars and light trucks by model year 2020.

EISA requires establishment of interim standards (from 2011 to 2020) that will be the maximum feasible average fuel economy for each fleet. On October 10, 2008, the National Highway Traffic Safety Administration (NHTSA) released a final environmental impact statement analyzing interim standards for model years 2011 to 2015 passenger cars and light trucks. NHTSA issued a final rule for model year 2011 on March 23, 2009. In addition to setting increased CAFE standards for motor vehicles, the EISA included other provisions: 1) renewable fuel standard (RFS) (Section 202); 2) appliance and lighting efficiency standards (Sections 301–325); and 3) building energy efficiency (Sections 411–441). Additional provisions addressed energy savings in government and public institutions, promoting research for alternative energy, additional research in carbon capture, international energy programs, and the creation of green jobs. On May 19, 2009, President Obama announced a national policy for fuel efficiency and emissions standards in the United States auto industry. The federal standards apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles built in model years 2012 through 2016.

In addition, on September 15, 2009, President Obama proposed new fuel efficiency standards for cars and trucks that required fuel economy to increase by 5% annually. In 2016, new cars and trucks will have to achieve an average rating of 35.5 mpg, four years sooner than the law now requires. Alternatively, manufacturers could meet this requirement if their vehicles, on average, emit no more than 250 grams of CO<sub>2</sub> per mile.

### **Stationary Source Regulations**

Under the CAA, once a pollutant is regulated under any part of the Act, (as was the case with GHG emissions after the motor vehicle regulations were finalized in April 2010), major new sources or modifications are subject to the Prevention of Significant Deterioration (PSD) program and to Title V operating permits. In the PSD program, major new or modified stationary sources (such as power plants and manufacturing facilities) are required to implement best available control technologies for pollution abatement.

## The Tailoring Rule

On May 13, 2010, US EPA issued the final version of a new rule for GHG emissions, referred to as the Tailoring Rule. The rule states that new or modified sources that already are subject to New Source Review requirements for other pollutants will be required to also meet these requirements for GHGs if they increase emissions by more than 75,000 tons of CO<sub>2</sub>e annually. Then after July 1, 2011, the requirements apply to new sources that emit at least 100,000 tons of CO<sub>2</sub>e annually and to major modifications of existing sources emitting 75,000 tons of CO<sub>2</sub>e annually, even if they do not meet the threshold new source review requirements for other pollutants. In July 2012, the requirements began applying Title V operating permit requirements to existing sources not currently covered by Title V if they emit 100,000 tons of CO<sub>2</sub>e annually. In regulating these GHG emissions, US EPA has developed guidelines for states to use in determining what would satisfy requirements as “best available control technology” as part of new source review of major modifications or new sources.

## GHG and Fuel Efficiency Standards for Passenger Cars and Light-Duty Trucks

In April 2010, US EPA and NHTSA finalized GHG standards for new (model year 2012 through 2016) passenger cars, light-duty trucks, and medium-duty passenger vehicles. Under these standards, CO<sub>2</sub> emission limits would decrease from 295 grams per mile (g/mi) in 2012 to 250 g/mi in 2016 for a combined fleet of cars and light trucks. If all of the necessary emission reductions were made from fuel economy improvements, the standards would correspond to a combined fuel economy of 30.1 miles per gallon (mpg) in 2012 and 35.5 mpg in 2016. The agencies issued a joint Final Rule for a coordinated National Program for model years 2017 to 2025 light-duty vehicles on August 28, 2012, that would correspond to a combined fuel economy of 36.6 mpg in 2017 and 54.5 mpg in 2025.

## GHG and Fuel Efficiency Standards for Medium-and Heavy-Duty Engines and Vehicles

In October 2010, the US EPA and NHTSA announced a program to reduce GHG emissions and to improve fuel efficiency for medium-and heavy-duty vehicles (model years 2014 through 2018). These standards were signed into law on August 9, 2011. The two agencies’ complementary standards form a new Heavy-Duty National Program that has the potential to reduce GHG emissions by 270 million metric tons and to reduce oil consumption by 530 million barrels over the life of the affected vehicles.

## Additional Stationary Source Rules

As a consequence of the decision in *Massachusetts v. Environmental Protection Agency*, US EPA entered into a December 2010 judicial settlement ending a long-running lawsuit seeking the inclusion of GHGs under the New Source Performance Standards (NSPS) provisions of the CAA. US EPA committed to promulgating NSPS for GHGs for power plants and refineries.

NSPSs are technology-based standards for new and existing sources that apply to specific categories of stationary sources.

## 2. State

### Executive Order S-3-05

On June 1, 2005, Executive Order (E.O.) S-3-05 set the following GHG emission reduction targets: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80% below 1990 levels. The E.O. establishes California GHG emission targets of 1990 levels by 2020 (the same as Assembly Bill [AB] 32) and 80% below 1990 levels by 2050. It calls for the Secretary of the California Environmental Protection Agency (Cal/EPA) to be responsible for coordination of state agencies and progress reporting. However, a recent CEC Report concludes that the primary strategies to achieve this target should be major “decarbonization” of electricity supplies and fuels, and major improvements in energy efficiency.

In response to the E.O., the Secretary of the Cal/EPA created the Climate Action Team (CAT). California’s CAT originated as a coordinating council organized by the Secretary for Environmental Protection. It included the Secretaries of the Natural Resources Agency and the Department of Food and Agriculture, and the Chairs of the Air Resources Board, the Energy Commission, and the Public Utilities Commission. The original council was an informal collaboration between the agencies to develop potential mechanisms for reductions in GHG emissions in California. The council was given formal recognition in E.O. S-3-05 and became the CAT.

The original mandate for the CAT was to develop proposed measures to meet the emissions reduction targets set forth in the Executive Order. The CAT has since expanded and currently has members from 18 state agencies and departments. The CAT also has ten working groups, which coordinate policies among their members. The working groups and their major areas of focus are as follows:

- Agriculture: Focusing on opportunities for agriculture to reduce GHG emissions through efficiency improvements and alternative energy projects, while adapting agricultural systems to climate change
- Biodiversity: Designing policies to protect species and natural habitats from the effects of climate change
- Energy: Reducing GHG emissions through extensive energy efficiency policies and renewable energy generation

- Forestry: Coupling GHG mitigation efforts with climate change adaptation related to forest preservation and resilience, waste to energy programs and forest offset protocols
- Land Use and Infrastructure: Linking land use and infrastructure planning to efforts to reduce GHG from vehicles and adaptation to changing climatic conditions
- Oceans and Coastal: Evaluating the effects sea level rise and changes in coastal storm patterns on human and natural systems in California
- Public Health: Evaluating the effects of GHG mitigation policies on public health and adapting public health systems to cope with changing climatic conditions
- Research: Coordinating research concerning impacts of and responses to climate change in California
- State Government: Evaluating and implementing strategies to reduce GHG emissions resulting from state government operations
- Water: Reducing GHG impacts associated with the state's water systems and exploring strategies to protect water distribution and flood protection infrastructure.

### **Assembly Bill 32 (AB 32)**

In September 2006, the California Global Warming Solutions Act of 2006, also known as AB 32, was signed into law. AB 32 focuses on reducing GHG emissions in California and requires the California Air Resources Board (CARB) to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by 2020. The CARB initially determined that the total statewide aggregated GHG 1990 emissions level and the 2020 emissions limit was 427 million metric tons of CO<sub>2</sub>e. The 2020 target reduction was estimated to be 174 million metric tons of CO<sub>2</sub>e.

To achieve the goal, AB 32 mandates that CARB establish a quantified emissions cap, institute a schedule to meet the cap, implement regulations to reduce statewide GHG emissions from stationary sources, and develop tracking, reporting, and enforcement mechanisms to ensure that reductions are achieved. Because the intent of AB 32 is to limit 2020 emissions to the equivalent of 1990, it is expected that the regulations would affect many existing sources of GHG emissions and not just new general development projects. Senate Bill 1368, a companion bill to AB 32, requires the California Public Utilities Commission and the CEC to establish GHG emissions performance standards for the generation of electricity. These standards will also apply to power that is generated outside California and imported into the state.

AB 32 charges CARB with the responsibility to monitor and regulate sources of GHG emissions to reduce those emissions. On June 1, 2007, CARB adopted three discrete early action measures to reduce GHG emissions. These measures involved complying with a low carbon fuel standard, reducing refrigerant loss from motor vehicle air conditioning maintenance, and increasing methane capture from landfills.<sup>70</sup> On October 25, 2007, CARB tripled the set of previously approved early action measures. The approved measures include improving truck efficiency (for example, reducing aerodynamic drag), electrifying port equipment, reducing PFCs emissions from the semiconductor industry, reducing propellants in consumer products, promoting proper tire inflation in vehicles, and reducing SF<sub>6</sub> emissions from the non-electricity sector.

The CARB AB 32 Scoping Plan (Scoping Plan) contains the main strategies to achieve the 2020 emissions cap. The Scoping Plan was developed by CARB with input from the CAT and proposes a comprehensive set of actions designed to reduce overall carbon emissions in California, improve the environment, reduce oil dependency, diversify energy sources, and enhance public health while creating new jobs and improving the state economy. The GHG reduction strategies contained in the Scoping Plan include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system. Key approaches for reducing GHG emissions to 1990 levels by 2020 include the following:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewable electricity standard of 33%;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation-related GHG emissions for regions throughout the state, and pursuing policies and incentives to achieve those targets; and
- Adopting and implementing measures to reduce transportation sector emissions.

CARB has adopted the First Update to the Climate Change Scoping Plan.<sup>71</sup> This update identifies the next steps for California's leadership on climate change. The first update to the initial AB 32 Scoping Plan describes progress made to meet the near-term objectives of AB 32 and defines California's climate change priorities and activities for the next several years. It also frames activities and issues facing the state as it develops an integrated framework for achieving air quality and climate goals in California beyond 2020. Specifically, the update covers a range of topics, including the following:

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<sup>70</sup> CARB, Proposed Early Action Measures to Mitigate Climate Change in California, April 20, 2007.

<sup>71</sup> CARB, First Update to the Climate Change Scoping Plan: Building on the Framework, May 2014.

- An update of the latest scientific findings related to climate change and its impacts, including short-lived climate pollutants.
- A review of progress-to-date, including an update of Scoping Plan measures and other state, federal, and local efforts to reduce GHG emissions in California.
- Potential technologically feasible and cost-effective actions to further reduce GHG emissions by 2020.
- Recommendations for establishing a mid-term emissions limit that aligns with the state's long-term goal of an emissions limit 80% below 1990 levels by 2050.
- Sector-specific discussions covering issues, technologies, needs, and ongoing state activities to significantly reduce emissions throughout California's economy through 2050.

In December 2007, CARB approved a total statewide GHG 1990 emissions level and 2020 emissions limit of 427 million metric tons of CO<sub>2</sub>e. As part of the update, CARB revised the 2020 statewide limit to 431 million metric tons of CO<sub>2</sub>e, an approximately 1% increase from the original estimate. The 2020 BAU (business as usual forecast in the update is 509 million metric tons of CO<sub>2</sub>e. The state would need to reduce those emissions by 15.3% to meet the 431 million metric tons of CO<sub>2</sub>e 2020 limit.

### **SB 97 and CEQA Guidelines**

In August 2007, the California Legislature adopted Senate Bill 97 (SB 97), requiring the Office of Planning and Research (OPR) to prepare and transmit new CEQA guidelines for the mitigation of GHG emissions or the effects of GHG emissions to the California Natural Resources Agency by July 1, 2009. Following receipt of these guidelines, the Resources Agency was required to certify and adopt the guidelines prepared by OPR by January 1, 2010.

OPR submitted its proposed guidelines to the Secretary for Natural Resources on April 13, 2009. The Natural Resources Agency then undertook the formal rule-making process to certify and adopt the amendments as part of the state regulations implementing CEQA. The CEQA Guidelines amendments were adopted on December 30, 2009 and became effective on March 18, 2010.

The CEQA Guidelines amendments do not specify a threshold of significance for GHG emissions, nor do they prescribe assessment methodologies or specific mitigation measures. Instead, the amendments encourage lead agencies to consider many factors in performing a CEQA analysis, but rely on the lead agencies in making their own significance threshold determinations based upon substantial evidence. The CEQA Guidelines amendments also encourage public agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses.

**Senate Bill (SB) 375**

California's Sustainable Communities and Climate Protection Act, also referred to as Senate Bill 375 (SB 375) became effective January 1, 2009. The goal of SB 375 is to help achieve AB 32's GHG emissions reduction goals by aligning the planning processes for regional transportation, housing, and land use. SB 375 requires CARB to develop regional reduction targets for GHGs, and prompts the creation of regional plans to reduce emissions from vehicle use throughout the state. California's 18 Metropolitan Planning Organizations (MPOs) have been tasked with creating Sustainable Community Strategies (SCS) in an effort to reduce the region's vehicle miles traveled (VMT) to help meet AB 32 targets through integrated transportation, land use, housing and environmental planning. Pursuant to SB 375, CARB set per-capita GHG emissions reduction targets from passenger vehicles for each of the state's 18 MPOs. For the SCAG region, the targets are set at 8% below 2005 per capita emissions levels by 2020 and 13% below 2005 per capita emissions levels by 2035.

**Senate Bill (SB) 743**

SB 743, adopted September 27, 2013, encourages land use and transportation planning decisions and investments that reduce vehicle miles traveled that contribute to GHG emissions, as required by AB 32. Key provisions of SB 743 include reforming aesthetics and parking CEQA analysis for urban infill projects and eliminating the measurement of auto delay, including level of service (LOS), as a metric that can be used for measuring traffic impacts in transit priority areas. SB 743 requires the State Office of Planning and Research (OPR) to develop revisions to the CEQA Guidelines establishing criteria for determining the significance of transportation impacts of projects within transit priority areas that promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses. It also allows OPR to develop alternative metrics outside of transit priority areas.

**California's Energy Efficiency Standards for Residential and Nonresidential Buildings**

Located in Title 24, Part 6 of the CCR and commonly referred to as "Title 24," these energy efficiency standards were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The goal of Title 24 energy standards is the reduction of energy use. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods.<sup>72</sup> On May 31, 2012, the California Energy Commission (CEC) adopted the 2013 Building and Energy Efficiency Standards. Buildings that are constructed in accordance with the 2013 Building and Energy Efficiency Standards are 25% (residential) to 30% (nonresidential) more energy efficient than

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72 CEC, California's Energy Efficiency Standards for Residential and Nonresidential Buildings, Title 24, Part 6, of the California Code of Regulations.

the 2008 standards as a result of better windows, insulation, lighting, ventilation systems, and other features that reduce energy consumption in home and businesses.

### **California Green Building Code**

The California Green Building Code, referred to as CALGreen, is the first statewide green building code. It was developed to provide a consistent approach for green building within California. CALGreen lays out minimum requirements for newly constructed buildings in California, which will reduce greenhouse gas emissions through improved efficiency and process improvements. It requires builders to install plumbing that cuts indoor water use by as much as 20%, to divert 50% of construction waste from landfills to recycling, and to use low-pollutant paints, carpets, and floors.

## **3. Regional**

### **Southern California Association of Governments (SCAG) 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)**

While Southern California is a leader in reducing emissions, and ambient levels of air pollutants are improving, the SCAG region continues to have the worst air quality in the nation. SCAG completed the RTP/SCS, which includes a strong commitment to reduce emissions from transportation sources to comply with SB 375. Goals and policies included in the RTP/SCS to reduce air pollution consist of adding density in proximity to transit stations, utilizing mixed-use development, and encouraging active transportation (i.e., non-motorized transportation such as bicycling). SCAG promotes the following policies and actions related to active transportation to help the region confront congestion and mobility issues and consequently improve air quality:

- Implement Transportation Demand Management (TDM) strategies including integrating bicycling through folding bikes on buses programs, triple racks on buses, and dedicated racks on light and heavy rail vehicles;
- Encourage and support local jurisdictions to develop "Active Transportation Plans" for their jurisdiction if they do not already have one;
- Expand Compass Blueprint program to support member cities in the development of bicycle plans;
- Expand the Toolbox Tuesday's program to encourage local jurisdictions to direct enforcement agencies to focus on bicycling and walking safety to reduce multimodal conflicts;
- Support local advocacy groups and bicycle-related businesses to provide bicycle-safety curricula to the general public;
- Encourage children, including those with disabilities, to walk and bicycle to school;

- Encourage local jurisdictions to adopt and implement the proposed SCAG Regional Bikeway Network; and
- Support local jurisdictions to connect all of the cities within the SCAG region via bicycle facilities.

### **South Coast Air Quality Management District (SCAQMD)**

The SCAQMD adopted a “Policy on Global Warming and Stratospheric Ozone Depletion” on April 6, 1990. The policy commits the SCAQMD to consider global impacts in rulemaking and in drafting revisions to the Air Quality Management Plan (AQMP). In March 1992, the SCAQMD Governing Board reaffirmed this policy and adopted amendments to the policy.

SCAQMD released draft guidance regarding interim CEQA GHG significance thresholds. In its October 2008 document, the SCAQMD proposed the use of a percent emission reduction target (for example, 30%) to determine significance for commercial/residential projects that emit greater than 3,000 metric tons per year. On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold for stationary source/industrial projects where the SCAQMD is the lead agency. However, SCAQMD has yet to adopt a GHG significance threshold for land use development projects (e.g., residential/commercial projects) and has formed a GHG Significance Threshold Working Group to further evaluate potential GHG significance thresholds.

SCAQMD has convened a GHG CEQA Significance Threshold Working Group to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. Members of the working group include government agencies implementing CEQA and representatives from various stakeholder groups that will provide input to the SCAQMD staff on developing CEQA GHG Significance Thresholds. The working group is currently discussing multiple methodologies for determining project significance. These methodologies include categorical exemptions, consistency with regional GHG budgets in approved plans, a numerical threshold, performance standards, and emissions offsets.

## **4. Local**

### **City of Yorba Linda**

In December 2013, the City of Yorba Linda adopted applicable components of the state’s current Building, Residential, Green Building Standards, Fire, Plumbing, Mechanical, and Electrical Codes via ordinance. See Resolution No. 2013-5208.

### 5.3-4 Thresholds of Significance

#### 1. Appendix G of the CEQA Guidelines

In accordance with Appendix G of the CEQA Guidelines, the Proposed Project would have a significant impact if it would:

- a) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment;
- b) Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

A project's GHG emissions typically are very small in comparison to state or global GHG emissions. In isolation, a Project may have no significant direct impact on climate change. However, the increased accumulation of GHGs from more than one project and many sources in the atmosphere may result in global climate change, which can cause the adverse environmental effects previously discussed. Accordingly, the threshold of significance for GHG emissions determines whether a project's contribution to global climate change is "cumulatively considerable." Many air quality agencies, including the SCAQMD, concur that GHG and climate change should be evaluated as potentially significant cumulative impacts, rather than as project-specific and direct impacts.

The City of Yorba Linda, the SCAQMD, and the CEQA Guidelines Amendments have not adopted any quantitative thresholds of significance for addressing a mixed-use commercial project's GHG emissions. Nonetheless, §15064.4 of the CEQA Guidelines Amendments provides some guidance with respect to determining the significance of the impacts of GHGs. As required in §15064.4 of the CEQA Guidelines, this analysis includes an impact determination based on the following: 1) an estimate of the total amount of greenhouse gas emissions resulting from the Proposed Project; 2) a qualitative analysis or performance based standards; 3) a quantification of the extent to which the Proposed Project increases greenhouse gas emissions as compared to the existing environmental setting; and 4) the extent to which the Proposed Project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions.

With respect to demonstrating consistency with a statewide plan for the reduction of GHG emissions, one methodology commonly used to demonstrate consistency is to compare the Project's operational scenario with GHG-reduction strategies against a business as usual (BAU) scenario without GHG-reduction strategies identified in statewide plans, policies and regulations such as AB 32, the state's Scoping Plan, and SB 375.

As discussed previously, in December 2007, CARB approved a total statewide GHG 1990 emissions level and 2020 emissions limit of 427 million metric tons of CO<sub>2e</sub>. CARB revised the 2020 statewide limit to 431 million metric tons of CO<sub>2e</sub>, an approximately 1% increase from the original

estimate.<sup>73</sup> The 2020 BAU forecast in the update is 509 million metric tons of CO<sub>2</sub>e. The state would need to reduce those emissions by 15.3% to meet the 431 million metric tons of CO<sub>2</sub>e 2020 limit. Therefore, a project that is able to demonstrate a 15.3% reduction in GHG emissions as compared to a BAU scenario would be considered consistent with AB 32 and the state's goal of achieving 1990 GHG emission levels by the year 2020.

### 5.3-5 Project Impacts

#### 1. Methodology

The California Climate Action Registry (CCAR) General Reporting Protocol recommends the separation of GHG emissions into three categories that reflect different aspects of ownership or control over emissions. They include the following:

1. Scope 1: Direct, on-site combustion of fossil fuels (e.g., natural gas, propane, gasoline, and diesel).
2. Scope 2: Indirect, off-site emissions associated with purchased electricity or purchased steam.
3. Scope 3: Indirect emissions associated with other emissions sources, such as third-party vehicles and embodied energy.<sup>74</sup>

CARB believes that consideration of so-called indirect emissions provides a more complete picture of the GHG footprint of a facility. Annually reported indirect energy usage aids the conservation awareness of a facility and provides information to CARB to be considered for future strategies.<sup>75</sup> CARB has proposed requiring the calculation of direct and indirect GHG emissions as part of the AB 32 reporting requirements. Additionally, the OPR has noted that lead agencies "should make a good-faith effort, based on available information, to calculate, model, or estimate...GHG emissions from a project, including the emissions associated with vehicular traffic, energy consumption, water usage, and construction activities."<sup>76</sup> Therefore, direct and indirect emissions have been calculated for the Project from these sources.

#### Construction-Related Emissions

Consistent with SCAQMD recommendations, construction GHG emissions were calculated using the California Emissions Estimator Model (CalEEMod 2013.2.2). For a complete discussion of the construction methodology, please refer to the Air Quality Technical Report

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<sup>73</sup> CARB, "First Update to the Climate Change Scoping Plan: Building on the Framework," May 2014.

<sup>74</sup> Embodied energy is a scientific term that refers to the quantity of energy required to manufacture and supply to the point of use a product, material, or service.

<sup>75</sup> CARB, Initial Statement of Reasons for Rulemaking, Proposed Regulation for Mandatory Reporting of Greenhouse Gas Emissions Pursuant to the California Global Warming Solutions Act of 2006 (AB 32), Planning and Technical Support Division Emission Inventory Branch, October 19, 2007.

<sup>76</sup> State of California Office of Planning and Research (OPR), Technical Advisory, CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review, June 19, 2008.

prepared for the Project. The mobile source emission methodology for on-road construction emissions associated with worker commute and delivery of materials uses a rate of vehicle miles traveled calculated by CalEEMod to generate values for annual emissions. Emissions factors are derived from the EMFAC model using light duty automobile factors for worker commute and heavy duty truck factors for deliveries.

The Association of Environmental Professionals (AEP) has recommended that total construction emissions be amortized and added to operational emissions (AEP 2010). This amortization method is also recommended by the SCAQMD. Accordingly, the construction-related GHG emissions have been amortized over a 30-year operational period to be consistent with this guidance.

The most common GHGs emitted in association with the construction of land use developments include CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O. CalEEMod provides these GHGs and translates them into a common currency of carbon dioxide equivalent (CO<sub>2</sub>e). To obtain the CO<sub>2</sub>e, an individual GHG is multiplied by its global warming potential. The GWP designates on a pound-for-pound basis the potency of the GHG compared to CO<sub>2</sub>.

### **Operational Emissions**

Consistent with SCAQMD recommendations, operational GHG emissions were calculated using CalEEMod 2013.2.2. Operational GHG sources include motor vehicles, electricity, natural gas, water usage/wastewater generation, landscaping/maintenance equipment, and solid waste generation and disposal.

Motor vehicle emission calculations associated with operation of the Project use a projection of annual VMT, which is derived from the trips provided in the Project traffic study and the default trip characteristics in CalEEMod. These values account for the daily and seasonal variations in trip frequency and length associated with travel to and from the Project Site and other activities that require a commute.

GHGs are emitted as a result of activities in buildings for which electricity and natural gas are used as energy sources. Combustion of any type of fuel emits criteria pollutants and GHGs directly into the atmosphere; when this occurs in a building, it is a direct emission source associated with that building and CalEEMod calculates all of these pollutants. GHGs are also emitted during the generation of electricity from fossil fuels. When electricity is used, the electricity generation typically takes place off-site at a power plant; electricity use generally causes emissions in an indirect manner and therefore GHG emissions have been calculated from electricity generation.

The amount of water used and wastewater generated by a project has indirect GHG emissions associated with it. These emissions are a result of the energy used to supply, distribute, and treat the water and the wastewater. Water treatment and wastewater

treatment will often occur outside the project area. In this case, it is still important to quantify the energy and the associated GHG emissions attributable to the water use. In addition to the indirect GHG emissions associated with energy use, wastewater treatment can directly emit methane and nitrous oxide. Thus, GHG emissions have been calculated from water used and wastewater generated by the Project.

Municipal solid waste is the amount of material that is disposed of by land filling, recycling, or composting. CalEEMod calculates the indirect GHG emissions associated with waste that is disposed of at a landfill. The program uses annual waste disposal rates from the California Department of Resources Recycling and Recovery (CalRecycle) data for individual land uses. If waste disposal information was not available, waste generation data was used. CalEEMod uses the overall California Waste Stream composition to generate the necessary types of different waste disposed into landfills. CalEEMod quantifies the GHG emissions associated with the decomposition of the waste, which generates methane based on the total amount of degradable organic carbon. CalEEMod also quantifies the CO<sub>2</sub> emissions associated with the combustion of methane, if applicable. Default landfill gas concentrations were used as reported in Section 2.4 of AP-42.<sup>77</sup> The IPCC has a similar method to calculate GHG emissions from municipal solid waste in its 2006 Guidelines for National Greenhouse Gas Inventories.

Planting trees will sequester CO<sub>2</sub> and is considered to result in a one-time carbon-stock change. Trees sequester CO<sub>2</sub> while they are actively growing. The amount of CO<sub>2</sub> sequestered depends on the type of tree. CalEEMod uses default annual CO<sub>2</sub> accumulation per tree for specific broad species classes.

Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers, as well as air compressors, generators, and pumps. The emissions associated with landscape equipment use were processed using OFFROAD 2007 and CARB's Technical Memo: "Change in Population and Activity Factors for Lawn and Garden Equipment" (6/13/2003).

## 5.3-6 Impacts Analysis

### 1. Construction GHG Emissions

For purposes of this analysis, it is estimated that the Project would begin construction toward the end of 2015, and construction would be completed by the end of 2016 (an approximate 12-month construction duration). This analysis assumes that construction would be undertaken with the following primary construction phases: 1) demolition/site clearing, 2) grading/soil import/foundations, and 3) structural building/finishing. Each construction phase has been detailed below.

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<sup>77</sup> See AP-42, Fifth Edition, "Compilation of Air Pollutant Emission Factors," prepared by the Office of Air Quality Planning and Standards, U.S. EPA, January 1995.

1. **Demolition/Site Clearing** – The Project would require demolition, site clearing, and potential relocation of existing uses on the Project Site. Specifically, three existing cottages were assigned a historic resource status code and could be relocated from their existing locations. In addition to the removal/relocation of these uses, demolition would include the removal of asphalt, concrete, other ancillary structures, trees, fences, and other existing debris. This analysis estimates that up to approximately 3,500 tons of debris would be demolished from the site over approximately 13 construction days. The daily on-site demolition activities would require the following equipment: one concrete/industrial saw, three excavators, and two rubber-tired dozers.
2. **Grading/Soil Import/Foundation** – After the completion of demolition/site clearing, grading, soil import, and foundation preparation activities would occur for approximately 1 to 2 months and would involve the cut and fill of land to ensure the proper base and slope for the building pads and foundations.

With respect to soil import, it is estimated the Project would require approximately 100,000 cubic yards (cy) of soil import to balance the site. This activity is anticipated to generate a maximum of 200 truck-loads per day (or 200 round trips, 400 one-way trips). Under the assumption that each truck load would carry approximately 16 cy of soil, approximately 3,200 cy of soil import would occur per day for approximately 31 construction days, resulting in 100,000 cy of total soil import. The following two potential haul routes have been identified for the import of materials to the site:

1. Southbound SR-57 to southbound Imperial Highway (SR-90) to Lemon Drive to Lakeview Avenue to Project Site;
2. Westbound SR-91 to northbound Imperial Highway (SR-90) to Yorba Linda Boulevard to Lakeview Avenue to Project Site.

Trucks from southbound Imperial Highway (SR-90) are expected to enter and exit the site via Lemon Drive and Lakeview Avenue. Trucks from northbound Imperial Highway (SR-90) are expected to enter and exit the site via Yorba Linda Boulevard and Lakeview Avenue.

Regarding on-site activities, this analysis assumes daily grading activities would require the following equipment: two excavators, one grader, one rubber-tired dozer, two scrapers, and two tractors/loaders/backhoes.

3. **Building Construction** – The Project includes the construction of approximately 125,345 to 149,295 square feet of commercial and retail uses and 718 parking spaces (approximately half in structured parking and half in surface parking). The building construction phase is expected to occur for approximately 10 months. Upon completion of the building shells, interior finishing (coatings) and paving of parking areas and streets would follow. It is estimated that architectural coatings would occur over two

months during building construction, and paving would occur over one month during the building construction phase. This analysis assumes that the maximum daily construction building activities would require the following equipment: one crane, three forklifts, one generator set, three tractor/loader/backhoes, one welder, one air compressor, two pavers, two pieces of paving equipment, and two rollers.

Emissions of GHGs were calculated using CalEEMod for each phase and each year of construction of the Project and the results of this analysis are presented in **Table 5.3-4** below. The table illustrates that the greatest annual increase in GHG emissions from the Project's construction activities would be 1,157.16 CO<sub>2</sub>e metric tons per year in 2016. The total amount of construction-related GHG emissions is estimated to be approximately 1,194.39 CO<sub>2</sub>e metric tons per year, or approximately 39.81 CO<sub>2</sub>e metric tons per year amortized over a 30-year period.

**Table 5.3-4 Project Construction-Related Greenhouse Gas Emissions**

Year	CO <sub>2</sub> e Emissions (metric tons per year)
2015	37.23
2016	1,157.16
Total Project Construction GHG Emissions	1,194.39

CalEEMod data provided in Appendix 5.3, Appendix A.

## 2. Operational GHG Emissions

The Project includes the operation of approximately 125,000 to 149,295 square feet of commercial and retail uses and 718 parking spaces (382 parking structure and 336 street level). The GHG emissions resulting from operation of the Project, which involves the usage of on-road mobile vehicles, electricity, natural gas, water, landscape equipment, and generation of solid waste and wastewater, were calculated under two scenarios to illustrate the effectiveness of the Project's compliance with the CALGreen Code and to illustrate the reduction of motor vehicle-related GHG emissions as a result of the project's mixed-use design, walkability, and urban location. These scenarios are characterized as the Project Without GHG Reduction Measures (i.e., BAU Scenario) and the Project With GHG Reduction Measures. Emissions of operational GHGs are shown in **Table 5.3-5** below. As shown, the increase in GHG emissions generated by the Project Without GHG Reduction Measures (BAU Scenario) would be 8,686.94 CO<sub>2</sub>e metric tons per year, and the increase in GHG emissions generated by the Project With GHG Reduction Measures Scenario would be 6,432.41 CO<sub>2</sub>e metric tons per year. This represents an approximate 26% reduction in GHG emissions as a result of the implementation of the CALGreen Code and the Project's mixed-use design, walkability, and urban location.

As previously discussed, CARB's Scoping Plan estimates that a 15.3% reduction below the estimated statewide BAU levels would be necessary to return to 1990 emission levels (i.e.,

427 MMT CO<sub>2</sub>E) by 2020. As the project's GHG reduction measures would result in an approximate 26% reduction in GHG emissions, the Proposed Project would be consistent with statewide reduction targets established in AB 32 and the Scoping Plan.

**Table 5.3-5 Project Operational Greenhouse Gas Emissions**

Emissions Source	Estimated Project Generated CO <sub>2</sub> e Emissions (metric tons per year)	
	Project Without GHG Reduction Measures (BAU Scenario)	Project With GHG Reduction Measures
Area	0.05	0.05
Energy	1,589.87	1,474.17
Mobile (Motor Vehicles)	6,724.18	4,585.35
Solid Waste Generation	204.24	204.24
Water Consumption	128.79	128.79
Construction Emissions*	39.81	39.81
<b>Project Total</b>	<b>8,686.94</b>	<b>6,432.41</b>
<b>Project Break From BAU Scenario (%)</b>		<b>26%</b>

\*Consistent with SCAQMD recommendations, the total construction GHG emissions were amortized over 30 years and added to the operation of the Project.

CalEEMod data provided in Appendix 5.3, Appendices A and B.

### GHG Emissions Associated With Motor Vehicles

As illustrated in **Table 5.3-5** above, GHG emissions from motor vehicles account for more than 70% of all Project GHGs. Motor-vehicle-related GHG emissions are regulated at the federal, state, and local levels. As discussed in the CARB Scoping Plan, the transportation sector – largely the cars and trucks that move goods and people – is the largest contributor with 38% of the state's total GHG emissions. Many of the transportation-related reduction measures identified in the Scoping Plan are focused on improving motor vehicle efficiencies through more restrictive statewide laws and regulations. Some of these measures include Pavley I and Pavley II Standards for light-duty vehicles, Low Carbon Fuel Standards (LCFS), aerodynamic improvements for heavy-duty vehicles, and medium- and heavy-duty vehicle hybridizations. Together, these measures are estimated to reduce 2020 forecasted emissions by 52.60 MMTCO<sub>2</sub>E. These regulatory measures are aimed at improving efficiencies of the motor vehicle fleet mix across the state, and as such, GHG emissions from future motor vehicles accessing the Project would be reduced as a result of these statewide programs. These efficiencies were conservatively not reflected in the Project's break from BAU calculations above. If these factors were added to the calculations, the Project's reduction in GHGs compared to the BAU scenario would be further improved.

### Consistency With GHG-Reducing Plans, Policies and Regulations

**Table 5.3-5** above underscores that the Project's mixed-use design, walkability, and urban location would reduce motor-vehicle-related GHG emissions compared to a project without these components. Specifically, as discussed in detail in the Project's traffic study, the

Project's mixed-use design, walkability, and urban location would reduce motor vehicle trips by approximately 32% or 3,182 trips compared to a Project without these features. As illustrated in Appendices A and B to the GHG Emissions Technical Report, this results in a reduction of approximately 5 million vehicle miles traveled (VMT) annually.

As noted in the Scoping Plan, SB 375 establishes mechanisms for the development of regional targets for reducing passenger vehicle GHG emissions. Through the SB 375 process, regions will work to integrate development patterns and the transportation network in a way that achieves the reduction of GHG emissions while meeting housing needs and other regional planning objectives. SB 375 reflects the importance of achieving significant additional reductions of GHG emissions from changed land use patterns and improved transportation to help achieve the goals of AB 32. Specifically, SB 375 requires CARB to develop regional reduction targets for GHGs, and prompts the creation of regional plans to reduce emissions from vehicle use throughout the state. California's 18 MPOs have been tasked with creating Sustainable Community Strategies (SCS) in an effort to reduce the region's VMT to help meet AB 32 targets through integrated transportation, land use, housing, and environmental planning. Thus, the Project's reduction in regional VMTs through its mixed-use design, walkability, and urban location would be consistent with local and statewide goals and policies aimed at reducing the generation of GHGs through integrated transportation, land use, housing, and environmental planning.

As discussed previously, the City of Yorba Linda adopted applicable components of California's 2013 Building, Residential, Green Building Standards, Fire, Plumbing, Mechanical, and Electrical Codes. Buildings that are constructed in accordance with the 2013 Building and Energy Efficiency Standards are 25% (residential) to 30% (non-residential) more energy efficient than the 2008 standards as a result of better windows, insulation, lighting, ventilation systems, and other features that reduce energy consumption in home and businesses. The Project would be built to the state's 2013 Green Building Standards and would thus be consistent applicable local and statewide plans, policies, and regulations aimed at the reduction of GHGs. Therefore, no mitigation measures would be required.

### **5.3-7 Level of Significance Before Mitigation**

Less than Significant

### **5.3-8 Mitigation Measures**

No mitigation measures are required.

### **5.3-9 Cumulative Impacts**

Although the Project is expected to emit GHGs, the emission of GHGs by a single project into the atmosphere is not itself necessarily an adverse environmental effect. Rather, it is the increased accumulation of GHG from more than one project and many sources in the atmosphere that may result in global climate change. The resultant consequences of that climate change can cause adverse environmental effects. A project's GHG emissions typically are relatively very small in comparison to state or global GHG emissions and, consequently, in isolation would have no significant direct impact on climate change. The Project's GHG emissions would not be considered to be substantial when compared to California's statewide GHG emissions.

Given the Project's mixed-use design, walkability, urban location, and compliance with the CALGreen Code, the Project would be consistent with local and statewide goals and policies aimed at reducing the generation of GHGs, including SB 375 and CARB's AB 32 Scoping Plan aimed at achieving 1990 GHG emission levels by 2020. Similarly, related projects would also be subject to these emissions reduction goals and objectives, and related projects would be required to demonstrate consistency on a case-by-case basis. Therefore, the Project's generation of GHG emissions would not make a cumulatively considerable contribution to GHG emissions and climate change, and cumulative impacts would be less than significant. No mitigation measures would be required.

### **5.3-10 Level of Significance After Mitigation**

Less than Significant

## 5.4 Land Use and Planning

### 5.4-1 Introduction

This section addresses the consistency of the Proposed Project with the Yorba Linda Town Center Specific Plan, with applicable local land use plans, including the City's General Plan, and the Southern California Association of Governments (SCAG) Regional Comprehensive Plan. This section also discusses the physical compatibility of the Proposed Project with the existing mix and distribution of surrounding land uses.

### 5.4-2 Existing Conditions

#### 1. Regional

The City of Yorba Linda is located within the six-county jurisdiction of SCAG, which also includes Ventura, Orange, San Bernardino, Riverside, and Imperial counties. SCAG has divided its jurisdiction into 13 subregions to facilitate regional planning efforts. The City of Yorba Linda is situated in northeast Orange County, California, approximately 38 miles southeast of Los Angeles. Jurisdictions adjacent to Yorba Linda include the cities of Anaheim, Placentia, and Brea, and County of Orange unincorporated County of Orange. The eastern Yorba Linda city boundary abuts the Orange County/San Bernardino County border. Regional transportation routes in the Yorba Linda area include the Riverside Freeway (State Route [SR] 91), the Eastern Transportation Corridor (SR-241), and Imperial Highway (SR-90). The Santa Ana River, Chino Hills State Park, Featherly Regional Park, and Yorba Regional Park provide regional recreational facilities.

#### 2. Local

The approximately 11.22 acres (not including right of way dedication) Project Site is located within the Yorba Linda Town Center Specific Plan Area, east of the Historic Town Center District and is bordered by Imperial Highway, Yorba Linda Boulevard, and Lakeview Avenue. The Project Site is located in the heart of the City of Yorba Linda. The Nixon Library is located farther west of the Project Site, residential land uses are located north and northeast of the Project Site, and commercial land uses are located to the west, south, and southeast of the Project Site.

### 5.4-3 Regulatory Setting

#### 1. Regional

##### Regional Comprehensive Plan

SCAG is the regional governing body for the south coast region, which includes the counties of Orange, Los Angeles, Ventura, San Bernardino, Riverside, and Imperial. Regional associations of governments were

#### Acronyms used in this section:

CEQA	California Environmental Quality Act
EIR	Environmental Impact Report
MPO	Metropolitan Planning Organization
RHNA	Regional Housing Needs Assessment
RTP	Regional Transportation Plan
SCAG	Southern California Association of Governments

created by the state to guide land use decisions that overlap multiple jurisdictions by creating joint powers of agreement among these localities, and to provide policy guidance in the region. SCAG serves as Southern California’s forum for addressing regional issues concerning transportation, the economy, community development, and the environment. As a Metropolitan Planning Organization (MPO), SCAG’s main responsibilities under state and federal law are completing the Regional Transportation Plan (RTP) and the Regional Housing Needs Assessment (RHNA). The RTP involves preparation of long-range transportation plans and development and adoption of transportation improvement projects. The RHNA provides allocation of regional housing needs to all cities and counties within its boundaries; this includes allocations of low income housing needs.

While SCAG does not have a formal regulatory authority and therefore cannot directly implement land use decisions, SCAG guides land use planning for the Southern California region through intergovernmental coordination and consensus building. As a result, the Proposed Project must be consistent with the regional policies located within the SCAG 2008 Regional Comprehensive Plan, including Regional Transportation Plan Goals and Compass Growth Visioning Principles. SCAG reviews proposed development and infrastructure projects to analyze their impacts on regional planning programs.

## 2. Local

### City of Yorba Linda General Plan

Development in the City is subject to the City’s General Plan. The State of California mandates that every city and county prepare a general plan. A general plan is a comprehensive policy document outlining the types and capacity of future development in a city or county. The City of Yorba Linda General Plan policy statement is divided into eight chapters, including an introduction and seven elements: Land Use, Circulation, Recreation and Resources, Historic Resources, Noise, Public Safety, and Growth Management. The Land Use Element has the broadest scope of all the General Plan Elements. The Land Use Element establishes the pattern of land use in the City and sets standards and guidelines to regulate development.

The City of Yorba Linda General Plan was adopted in 1993 and subsequently updated. The City is currently updating the general plan. It is projected that the Draft General Plan will be released subsequent to the release of the Town Center Subsequent EIR. The City of Yorba Linda General Plan land use designation for the Project Site is Area Plan: Community Core.

### Area Plan: Community Core

The *California Government Code* provides that “the General Plan may be adopted as a single document or as a group of documents relating to subjects or geographic segments of the planning area.” It is common practice to focus special attention on selected areas of a

community for customized policy treatment not generally applicable elsewhere in the jurisdiction. In the Yorba Linda General Plan, these portions of the community are referred to as “Area Plans.” The purpose of this special treatment is to recognize the need for targeted policy establishment where an area:

- is experiencing pressures for change and requires immediate guidance;
- represents a special community resource or opportunity where preservation and/or change need encouragement;
- is characterized by unusual conditions or unique combinations of circumstances not found throughout the community;
- has the potential or need for customized regulatory techniques (specific plan, master plan, performance zoning, planned development zoning, etc.) and therefore requires other than conventional policy treatment;
- consists of an opportunity which must receive high priority to avoid its loss;
- which is appropriately considered to have more than one development option, requiring further, more detailed examination to identify the optimum maximum direction; or
- has any combination of these factors.

### **Community Core/Downtown Historical District Area Plan**

The Community Core/Downtown Historical District Opportunity Area(s) is treated as a unique designation within the General Plan. As stated in the Community Core/Downtown Historical District Area Plan, the entire 141.6 acres is designated as Area Plan and a Specific Plan would be required as a condition of the Area Plan designation of the General Plan. The specific land uses, residential densities, permitted uses, design considerations, standards and guidelines, and circulation improvements for the Community Core will be established by the Specific Plan. The Specific Plan will contain requirements and conditions to resolve potential conflicts between the Community Core land uses and residential uses adjacent to, and internal within, the Community Core. Within the Community Core designation are three subareas for which specific policies and implementation measures apply, which will be expanded in the Specific Plan prepared to implement the General Plan. These subareas include the Downtown Historical District, the Community Commercial District, and the Core Residential District. The Yorba Linda Town Center Specific Plan project (of which the Town Center retail project is a part) was adopted to satisfy the Specific Plan requirement noted above and is located within the Downtown Historical District.

### Yorba Linda Town Center Specific Plan (Zoning)

The Proposed Project is a part of the Yorba Linda Town Center Specific Plan area. The Yorba Linda Town Center Specific Plan provides for five distinct planning areas within the 31-acre planning area. (As discussed above the Proposed Project is comprised of 11.22 acres within the total 31-acre planning area). As discussed in **Section 2, Project Description**, the Proposed Project would modify the Yorba Linda Town Center Specific Plan areas as follows in **Table 5.4-1** below.

**Table 5.4-1 Required Changes to Town Center Specific Plan (TCSP) – Yorba Linda Town Center Project – Town Center Land Use District Boundary Revisions**

Land Use District (as approved in TCSP)	Proposed Change
1 – Historic Town Center (6.3 acres)	No change to boundaries
2 – Town Center Commercial (9.8 acres)	Extend easterly portion of Town Center Commercial District northerly to encompass larger footprint of proposed retail center, resulting in a revised acreage of approximately 15.6 acres for Town Center Commercial District. This proposed change results in a commensurate reduction in the Civic/Cultural Arts and Public Facilities District, and elimination of the Cottage District.
3 – Civic/Cultural Arts and Public Facilities District (5.1 acres)	Reduce Civic/Cultural Arts and Public Facilities District to account for larger footprint for proposed retail center, resulting in a revised acreage of approximately 1.8 acres for Civic/Cultural Arts and Public Facilities District.
4 – Cottage District (2.5 acres)	Eliminate District – convert area to Town Center Commercial District.
5 – Multi-family (7.3 acres)	No change to boundaries

#### 5.4-4 Thresholds of Significance

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, the Proposed Project would result in a significant impact related to land use and planning if it would:

- a) Physically divide an established community [*addressed within Appendix 1, Notice of Preparation/Initial Study and Section 7, Effects Not Found Significant*];
- b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; or
- c) Conflict with any applicable habitat conservation plan or natural community conservation plan [*addressed within Appendix 1, Notice of Preparation/Initial Study and Section 7, Effects Not Found Significant*].

As discussed in **Appendix 1** regarding the first and third threshold criteria, the Project area is largely developed with scattered vacant sites. The Project generally entails the redevelopment of a portion of the Town Center area with commercial. As the area is currently urbanized, the Project would not physically divide an established community. In addition, the Project area is not included in any adopted habitat conservation plans, natural community conservation plans, or

local, regional, or state habitat conservation plans. Therefore, conflicts with such plans would not occur with implementation of the Proposed Project. No further evaluation of the first and third threshold criteria is required.

### 5.4-5 Environmental Impacts

#### 1. Threshold

As two threshold criteria were previously addressed within the Notice of Preparation/Initial Study (**Appendix 1**), the remaining threshold of significance criteria for the following analysis is whether the Project would conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to, the general plan, the specific plan, a local coastal program, or a zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

#### 2. Impact Analysis

**Impact 5.4-1 The proposed project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect.**

#### Consistency with General Plan and Specific Plan Designations

The proposed Town Center Project is consistent with the Community Core land use designation. The General Plan envisions use of a Specific Plan as a mechanism to implement the vision for the Community Core/Downtown Historical District. The Downtown Historical District is intended for “downtown” commercial and office uses as the primary land use focus. The Proposed Project includes commercial and retail land uses that are consistent with the Community Core land use designation intent and function.

The Town Center Project would amend the Yorba Linda Town Center Specific Plan to reflect changes necessary to implement the design and use concept of the Proposed Project. As shown in **Table 5.4-1** above, the proposed Town Center Project, would expand Town Center commercial uses, reduce the area allocated for civic/cultural and public facility uses, and eliminate the Cottage District. The proposed changes to the Town Center Specific Plan are not altogether unexpected. When the Town Center Specific Plan was adopted by the City Council in 2011, the Specific Plan project was conceptual and the corresponding environmental document for that project was a Program EIR. Now that a project is proposed for the Town Center Specific Plan area, it comes as little surprise that site plan changes need to be made to the Town Center Specific Plan, which was conceptual in nature when previously adopted. With that said, the Proposed Project is consistent with the goals and objectives of the Community Core General Plan designation and the Town Center Specific Plan.

## Consistency with the General Plan Objectives and Policies

Implementation of the Proposed Project would be subject to the policies set forth in the City of Yorba Linda General Plan. **Table 5.4-2** outlines the applicable policies of the City's General Plan and the Proposed Project's consistency with each of these policies. As shown, the Proposed Project would be consistent with all the applicable General Plan policies.

**Table 5.4-2 Consistency with the City of Yorba Linda General Plan**

Policy	Project Consistency/Comment
<b>Land Use Element</b>	
<b>Goal 1: A mixture of land uses that meet the housing, commercial, educational, industrial, recreational, cultural and social needs of the existing residents and future population growth.</b>	
<b>Policy 1.6:</b> Promote the development of the downtown as a focal point for people to gather as a community which recognizes the varied interests of the population of Yorba Linda.	<b>Consistent.</b> The Town Center Project implements the approved Specific Plan that would create a downtown core in Yorba Linda. The Project would provide a variety of commercial and retail uses to suit a range of interests.
<b>Policy 1.7:</b> Establish standards and allow for the development of specialty commercial uses which capitalize on the City's historical heritage in the Area Plan designation of the Community Core.	<b>Consistent.</b> The approved Specific Plan allows for a variety of commercial uses to complement and enhance the historic look and feel of the downtown core. The Proposed Project uses include a specialty grocery store and a movie theatre, and is consistent with the design guidelines in Chapter 3 (Land Use and Urban Form) of the approved Specific Plan ensuring compatibility with the historic character of the area.
<b>Policy 1.9:</b> Permit and encourage the development of affordable housing opportunities pursuant to state Guidelines in locations adjacent to supporting services and public transportation provided they are compatible with, and will not adversely impact, the integrity and continuity of other adjacent uses.	<b>Consistent.</b> The Proposed Project does not modify the multi-family land use district of the Specific Plan. The Proposed Project allows for opportunities for a complementary mix of uses that are compatible with surrounding commercial and residential uses. The proximity between jobs and housing would enable walking and biking as pollution-free alternatives to automobile travel.
<b>Goal 2: A sufficient number of high quality commercial uses to support the needs of the residents of the City.</b>	
<b>Policy 2.5:</b> Recognize the importance of revitalizing the old downtown area into a historically oriented and functional business district through more detailed master planning for that area through the Area Plan designation.	<b>Consistent.</b> The Proposed Project would allow the downtown area to be revitalized with an importance placed on maintaining the historical character of the downtown.
<b>Policy 2.6:</b> Ensure that neighborhood-level commercial and retail uses are developed to conveniently serve local residents.	<b>Consistent.</b> The Proposed Project provides opportunities for a variety of retail and commercial uses to serve the residents of Yorba Linda.
<b>Goal 3: Compatible relationships between land uses provided in the community.</b>	
<b>Policy 3.5:</b> Allow for the development of sites exclusively for residential development within the Community Core provided that its location will not impact the integrity and continuity of other downtown uses.	<b>Consistent.</b> The Proposed Project would not modify the Multi-Family District.

Policy	Project Consistency/Comment
<b>Goal 4: High quality urban design that unites the City into a comprehensive entity, provides community gathering areas, and contributes to City pride and identity.</b>	
<p><b>Policy 4.6:</b> Allow for consideration, through the Area Plan designation, of changes in the permitted uses and increases in the development density and residential intensity to accommodate the development of spaces and places for people to gather as a community in the Community Core area, provided that the uses are:</p> <ul style="list-style-type: none"> <li>• Compatible with adjacent uses;</li> <li>• Contribute economic and social benefits;</li> <li>• Exhibit a distinctive level of architectural design and site planning merit;</li> <li>• Incorporate streetscape and other public urban design amenities which contribute a high quality image and benefit the community.</li> </ul>	<p><b>Consistent.</b> The intent of the Proposed Project is to create a desirable downtown for Yorba Linda. The approved Specific Plan calls for a complementary mix of land uses (commercial, residential, and public uses), building types, and walkable streets. The Specific Plan contains guidelines and standards to ensure that future development would be compatible with adjacent uses, while encouraging the preservation of the existing historical character of the Project area through appropriate architecture, landscaping, and urban design. The Proposed Project is consistent with the approved Specific Plan.</p>
<p><b>Policy 4.7:</b> Provide pedestrian and visual linkages between commercial, residential and public uses in the Community Core area, with particular emphasis in the Downtown Historic District.</p>	<p><b>Consistent.</b> The approved Specific Plan calls for a complementary mix of land uses (commercial, residential, and public uses), building types and walkable streets. Chapter 3 (Land Use and Urban Form) and Chapter 4 (Streetscape Beautification) of the Specific Plan provides standards and guidelines to ensure a high quality visual environment. The proximity and mix of uses encourages a “park once, walk many” setting and Chapter 5 (Circulation and Mobility) further defines planned pedestrian linkages. The Proposed Project is consistent with the approved Specific Plan.</p>
<b>Recreation and Resources Element</b>	
<b>Goal 12: To permanently preserve significant cultural or historical buildings, sites or features within the community.</b>	
<p><b>Policy 12.1:</b> Protect significant areas of historical, archaeological, educational or paleontological resources.</p>	<p><b>Consistent.</b> The approved Specific Plan contains design guidelines that ensure the Project would be compatible with existing on-site and adjacent uses, while encouraging the preservation of existing historical character of the Project area through appropriate architecture, landscaping, and urban design. Mitigation measures are proposed in <b>Section 5.2, Cultural Resources</b>, to preserve to the extent feasible, historical homes on the Project Site.</p>
<b>Historic Resources Element</b>	
<b>Goal 1: Establish a downtown “town center” area that protects and enhances historic, architectural and cultural resources.</b>	
<p><b>Policy 1.1:</b> Encourage the preservation, maintenance, enhancement, and reuse of existing historic buildings in redevelopment and commercial areas.</p>	<p><b>Consistent.</b> The approved Specific Plan contains design guidelines that ensure the Project would be compatible with existing on-site and adjacent uses, while encouraging the preservation of existing historical character of the Project area and discouraging misuse, disrepair, and demolition of existing historical structures. As discussed in <b>Section 5.2, Cultural Resources</b>, the Project would incorporate protections for historic buildings and structures and encourage adaptive reuse to the extent feasible.</p>

Policy	Project Consistency/Comment
<b>Policy 1.2:</b> Require design standards for commercial buildings and signs to be historically authentic.	<b>Consistent.</b> The approved Specific Plan contains design guidelines that ensure the Project would be compatible with existing on-site and adjacent uses, while encouraging the preservation of existing historical character of the Project area and discouraging misuse, disrepair and demolition of existing historical structures. Chapter 3 (Land Use and Urban Form) provides design policies for commercial buildings and signs to be historically authentic as applicable. As discussed in <b>Section 5.2, Cultural Resources</b> , the Project would incorporate protections for historic buildings and structures and encourage adaptive reuse, to the extent feasible.
<b>Goal 2: Preserve, protect and restore significant architectural and historical sites, structures and districts in the City.</b>	
<b>Policy 2.2:</b> Require appropriate adaptive reuse of historic resources in the Historic Downtown and Park Avenue/Park Place neighborhoods to prevent misuse, disrepair and demolition.	<b>Consistent.</b> As discussed in <b>Section 5.2, Cultural Resources</b> , the Project would incorporate protections for historic buildings and structures and encourage adaptive reuse, to the extent feasible.
<b>Policy 2.4:</b> Ensure historic protection in the Historic Downtown, the Park Avenue/Park Place neighborhood and selected areas with historic character but which do not meet the criteria of a historic district.	<b>Consistent.</b> The approved Specific Plan contains design guidelines that ensure the Project would be compatible with existing on-site and adjacent uses, while encouraging the preservation of existing historical character of the Project area and discouraging misuse, disrepair and demolition of existing historical structures. Chapter 3 (Land Use and Urban Form).
<b>Growth Management Element</b>	
<b>Goal 1B: To contribute to improved air quality in the South Coast Air Basin in support of the South Coast Air Quality Management Plan</b>	
<b>Policy 1.2:</b> Stimulate mixed uses in the Community Core area and key opportunity areas to contribute to reduced vehicle trips.	<b>Consistent.</b> The Proposed Project would locate jobs and services near transit opportunities. This mix of jobs and services in close proximity to transit would reduce vehicle miles traveled (VMT), congestion, and associated emissions. The proximity between jobs and nearby housing would enable walking and biking as pollution-free alternatives to automobile travel, thus providing further opportunity for reducing trips, VMT, congestion, and emissions.

### Consistency with SCAG Regional Transportation Plan Goals and Compass Growth Visioning Principles

The Proposed Project would be subject to the applicable goals set forth in the Final 2008 Regional Comprehensive Plan prepared by SCAG, including Regional Transportation Plan Goals and Compass Growth Visioning Principles. **Table 5.4-3** outlines the applicable policies and principles of the Final 2008 Regional Comprehensive Plan prepared by SCAG, including Regional Transportation Plan Goals and Compass Growth Visioning Principles. As shown, the Proposed Project would be consistent with all the applicable policies and principles.

**Table 5.4-3 Consistency with the SCAG Regional Transportation Plan Goals and Compass Growth Visioning Principles**

Policy/Principle	Statement of Consistency, Non-Consistency, or Not Applicable
<b>Regional Transportation Plan Goals</b>	
<b>RTP Policy G1:</b> Maximize mobility and accessibility for all people and goods in the region.	<b>Consistent.</b> The Proposed Project is consistent with the intent of the approved Specific Plan, which is to create a downtown core in Yorba Linda that would provide a variety of complementary commercial and residential uses supported by a range of mobility and accessibility options. The Project area is served by OCTA bus service along Imperial Highway, Lakeview Avenue, Yorba Linda Boulevard, and Lemon Drive through various routes (Routes 20 and 26). A mix of proposed uses and proposed pedestrian improvements and links would provide for a "park once, walk many" environment. Nearby bikeway facilities include the multi-purpose El Cajon Trail. In addition, a number of planned access and roadway improvements would be implemented over time as identified in the Project's Traffic Impact Analysis.
<b>RTP Policy G2:</b> Ensure travel safety and reliability for all people and goods in the region.	<b>Consistent.</b> The Proposed Project is consistent with Chapter 5 (Circulation and Mobility) of the approved Specific Plan, which provides policies to support a variety of mobility modes. All mobility improvements would be required to be designed in accordance with local, state, and federal safety regulations.
<b>RTP Policy G3:</b> Preserve and ensure a sustainable regional transportation system.	<b>Consistent.</b> The Proposed Project would provide for jobs and services in close proximity to existing transit opportunities.
<b>RTP Policy G4:</b> Maximize the productivity of our transportation system.	<b>Consistent.</b> The Proposed Project would locate jobs and services in close proximity to existing transit opportunities. Access to SR-90 is adjacent to the Project Site, which minimizes miles travelled for access to this transportation corridor.
<b>RTP Policy G5:</b> Protect the environment, improve air quality, and promote energy efficiency.	<b>Consistent.</b> The Proposed Project would locate jobs and services near transit opportunities. This mix of uses in close proximity to transit would reduce vehicle miles traveled (VMT), congestion, and associated emissions. The proximity between jobs and nearby housing would enable walking and biking as pollution-free alternatives to automobile travel, thus providing further opportunity for reducing trips, VMT, congestion, and emissions. Furthermore, a mix of land uses, building types, and walkable streets within the Yorba Linda Town Center Specific Plan area would allow a person to live and work in the same environment. The Project would provide the opportunity to improve air quality and promote energy efficiency.
<b>RTP Policy G6:</b> Encourage land use and growth patterns that complement our transportation investments and improves the cost-effectiveness of expenditures.	<b>Consistent.</b> The Proposed Project utilizes various smart growth policies (e.g., compact development, mix of land uses, transit accessibility, infill development) in its design. The Project would use existing mobility infrastructure for transit, roads, bikeways, and pedestrian connections. The Proposed Project is consistent with Chapter 5 (Circulation and Mobility) of the Specific Plan and in the Project Traffic Impact Analysis.
<b>RTP Policy G7:</b> Maximize the security of our transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.	<b>Not applicable.</b> The security of the transportation system, rapid recovery planning, and coordination with other security agencies is the responsibility of the City of Yorba Linda, other state agencies, and the transportation service providers.

Policy/Principle	Statement of Consistency, Non-Consistency, or Not Applicable
<b>Compass Growth Visioning</b>	
<b>Principle 1: Improve mobility for all residents</b>	
<b>GV Policy 1.1:</b> Encourage transportation investments and land use decisions that are mutually supportive.	<b>Consistent.</b> The Town Center Specific Plan, of which the Proposed Project is a part, has been designed to provide a mix of uses in close proximity to transit. The Specific Plan would allow higher density housing and commercial, office and public/institutional uses near existing bus routes (Routes 20 and 26). Internal circulation improvements and citywide planned improvements adjacent to the Project would be carried out as recommended in the Project Traffic Impact Analysis. The existing and proposed transportation investments are linked to the proposed mix of commercial and residential uses.
<b>GV Policy 1.2:</b> Locate new housing near existing jobs and new jobs near existing housing.	<b>Consistent.</b> The Proposed Project would locate jobs in close proximity to existing and proposed residential areas.
<b>GV Policy 1.3:</b> Encourage transit-oriented development.	<b>Consistent.</b> The Proposed Project has been designed to provide a mix of uses in close proximity to transit. The Project would provide commercial and service uses near existing bus routes (Routes 20 and 26).
<b>GV Policy 1.4:</b> Promote a variety of travel choices.	<b>Consistent.</b> The Proposed Project would provide a variety of travel choices including access to bus service, pedestrian and bike facilities, and roadways.
<b>Principle 2: Foster livability in all communities</b>	
<b>GV Policy 2.1:</b> Promote infill development and redevelopment to revitalize existing communities.	<b>Consistent.</b> The Proposed Project is consistent with the approved Town Center Specific Plan, which provides zoning and development standards for infill development and is surrounded on all sides by existing development.
<b>GV Policy 2.2:</b> Promote developments that provide a mix of uses.	<b>Consistent.</b> The Proposed Project has been designed to allow a mix of complementary uses to create a destination of the community. The Project would allow commercial, office, and public/institutional uses.
<b>GV Policy 2.3:</b> Promote “people scaled,” pedestrian-friendly (walkable) communities.	<b>Consistent.</b> A primary objective of the Proposed Project is to improve pedestrian connections and human-scaled environments. The proposed mix of land uses encourages a “park once, walk many” setting and provides the opportunity to live near job opportunities consistent with the Specific Plan. Chapters 3 (Land Use and Urban Form), Chapter 4 (Streetscape Beautification), and Chapter 5 (Circulation and Mobility) of the approved Specific Plan provide policies to create inviting pedestrian spaces and to improve linkages between Project areas.
<b>GV Policy 2.4:</b> Support the preservation of stable, single-family neighborhoods.	<b>Consistent.</b> The Proposed Project would not displace stable, single-family neighborhoods. For single-family areas east of the Project area, policies are contained in Chapter 3 (Land Use and Urban Form) of the approved Specific Plan for any adjacent new residential development to provide buffering, sensitive massing and appropriate transitions.
<b>GV Policy 2.5:</b> Promote infill development and redevelopment to revitalize existing communities.	<b>Consistent.</b> As indicated above, the Project Site is an infill development site, surrounded by existing development. A primary objective of the Project is to facilitate appropriate reuse of underutilized parcels.
<b>Principle 3: Enable prosperity for all people.</b>	
<b>GV Policy 3.1:</b> Provide in each community, a variety of housing types in each community to meet the housing needs of all income levels.	<b>Consistent.</b> The Proposed Project would not affect the previously approved multi-family district of the Specific Plan.
<b>GV Policy 3.2:</b> Support educational opportunities that support balanced growth.	<b>Not Applicable.</b> This policy is applicable to educational facilities that promote discussion regarding the limits of environmental resources and sustainability concepts.
<b>GV Policy 3.3:</b> Ensure environmental justice regardless of race, ethnicity, or income class.	<b>Not Applicable.</b> The approved Specific Plan provides for development and redevelopment of a variety of commercial, institutional, and residential uses; thus providing a range of opportunities for Yorba Linda residents and visitors.

Policy/Principle	Statement of Consistency, Non-Consistency, or Not Applicable
GV Policy 3.4: Support local and state fiscal policies that encourage balanced growth.	<b>Not Applicable.</b> It is beyond the scope of the Proposed Project to support local and state fiscal policies encouraging balanced growth. Nonetheless, the Proposed Project would locate jobs and commercial services in close proximity to residential areas.
GV Policy 3.5: Encourage civic engagement.	<b>Consistent.</b> The Proposed Project provides for a 1.8-acre Civic/Cultural Arts and Public Facilities District. The proposed Commons area fosters community through providing a gathering place for social interaction through civic and other private events.
<b>Principle 4: Promote sustainability for future generations.</b>	
GV Policy 4.1: Preserve rural, agricultural, recreational, and environmentally sensitive areas.	<b>Consistent.</b> The Proposed Project would not adversely impact environmental resources (wetlands, floodplains, threatened or endangered species and habitat, and water bodies supporting fish). The Proposed Project is set in an urbanized environment. Because the Project would facilitate infill development, it cannot be considered rural in nature, and there are no existing recreational facilities on the Project Site.
GV Policy 4.2: Focus development in urban centers and existing cities.	<b>Consistent.</b> The Project Site is surrounded by existing commercial and residential uses. The Proposed Project would facilitate infill development and provide a downtown environment for the residents of Yorba Linda.
GV Policy 4.3: Develop strategies to accommodate growth that uses resources efficiently, eliminate pollution and significantly reduce waste.	<b>Consistent.</b> The Proposed Project would locate jobs, and services near transit opportunities. The proximity between jobs and nearby housing would enable walking and biking as pollution-free alternatives to automobile travel, thus providing further opportunity for reducing trips, VMT, congestion, and emissions. Furthermore, a mix of land uses, building types and walkable streets within the Yorba Linda Town Center Project area would allow a person to live and work in the same environment.
GV Policy 4.4: Utilize "green" development strategies.	<b>Consistent.</b> In addition to compliance with 2008 Title 24 energy efficient standards, policies contained in the approved Specific Plan, of which the Proposed Project is consistent, provide recommendations for cool roofs to reflect the sun's energy, solar panels, permeable paving, urban bio-swales, water-efficient irrigation, and trees to reduce heat island effects.

Source: Tebo Environmental Consulting, Inc. 2015, and SCAG Regional Comprehensive Report, 2008.

As analyzed above, the Proposed Project is consistent with the General Plan, the Specific Plan, the Redevelopment Plan, and the Regional Comprehensive Plan. Land use and planning impacts would be less than significant.

#### 5.4-6 Mitigation Measures

No mitigation measures are required or recommended.

#### 5.4-7 General Plan Consistency

As described above in **Section 5.4-5, Environmental Impact** (page 5-97) and **Table 5.4-2** (page 5-98), the Proposed Project would be consistent with General Plan goals and policies.

#### **5.4-8 Cumulative Impacts**

Development of the identified related projects, as shown in **Section 4, Cumulative Impact Analysis**, would result in changes to existing land uses in the City of Yorba Linda through the conversion of vacant land and low-density uses to higher-density uses. All identified citywide related projects would be reviewed for consistency with adopted land use plans and policies by the City of Yorba Linda. For this reason, related projects are anticipated to be consistent with applicable general plan and zoning requirements, or be subject to an allowable exception, and further, would be subject to CEQA, mitigation requirements, and design review. The Proposed Project would be consistent with the General Plan, the Town Center Specific Plan, the SCAG Regional Comprehensive Plan, and the land use pattern in the City of Yorba Linda, and would not conflict with other planned development. Therefore, cumulative impacts related to land use would be less than significant.

#### **5.4-9 Significant Unavoidable Impacts**

All impacts would be less than significant; therefore, no unavoidable significant impacts related to land use and planning would result from implementation of the Proposed Project.

## 5.5 Noise

### 5.5-1 Introduction

This section describes noise impacts associated with construction and operation of the Proposed Project. This section provides a discussion of noise and the existing noise environment, and includes a project and cumulative noise impact analysis. The noise impact analysis addresses roadway noise, as well as noise from stationary sources, such as mechanical equipment. This noise impact analysis was based upon the Noise Technical Report, prepared by Pomeroy Environmental Services, February 2015 (**Appendix 5.5** in this EIR).

#### 1. Fundamentals of Sound and Environmental Noise

Sound is technically described in terms of amplitude (i.e., loudness) and frequency (i.e., pitch). The standard unit of sound amplitude measurement is the decibel (dB). The dB scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound. The pitch of the sound is related to the frequency of the pressure vibration. Since the human ear is not equally sensitive to a given sound level at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted dB scale (dBA) provides this compensation by emphasizing frequencies in a manner approximating the sensitivity of the human ear.

Noise, on the other hand, is typically defined as unwanted sound audible at such a level that the sound becomes an undesirable by-product of society's normal day-to-day activities. Sound becomes unwanted when it interferes with normal activities, causes actual physical harm, or results in adverse health effects. The definition of noise as unwanted sound implies that it has an adverse effect on, or causes a substantial annoyance, to people and their environment. However, not every unwanted audible sound interferes with normal activities, causes harm, or has adverse health effects. For unwanted audible sound (i.e., noise) to be considered adverse it must occur with sufficient frequency and at such a level that these adverse impacts are reasonably likely to occur.

Thresholds of significance, set forth below, are established to differentiate between benign, unwanted audible sound and potentially significant and adverse unwanted audible sound.

A typical noise environment consists of a base of steady ambient noise that is the sum of many distant and indistinguishable noise sources. Superimposed on this background noise is the sound from individual local sources. These can vary from an occasional aircraft or train passing by to virtually continuous noise, such as traffic on a major highway. **Table 5.5-1** illustrates representative noise levels in the environment.

#### Acronyms used in this section:

CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
dBA	A-weighted decibel
EIR	Environmental Impact Report
EPA	United States Environmental Protection Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GLA	gross leasable area
HVAC	heating, ventilating, and air conditioning
PPV	peak particle velocity
RMS	root mean square [ <i>velocity</i> ]
VdB	velocity in decibels
YLMC	Yorba Linda Municipal Code

**Table 5.5-1 Representative Environmental Noise Levels**

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	–110–	Rock Band
Jet Fly-over at 100 feet		
	–100–	
Gas Lawnmower at 3 feet		
	–90–	
		Food Blender at 3 feet
Diesel Truck going 50 mph at 50 feet	–80–	Garbage Disposal at 3 feet
Noisy Urban Area during Daytime		
Gas Lawnmower at 100 feet	–70–	Vacuum Cleaner at 10 feet
Commercial Area		Normal Speech at 3 feet
Heavy Traffic at 300 feet	–60–	
		Large Business Office
Quiet Urban Area during Daytime	–50–	Dishwasher in Next Room
Quiet Urban Area during Nighttime	–40–	Theater, Large Conference Room (background)
Quiet Suburban Area during Nighttime		
	–30–	Library
Quiet Rural Area during Nighttime		Bedroom at Night, Concert Hall (background)
	–20–	
		Broadcast/Recording Studio
	–10–	
Lowest Threshold of Human Hearing	–0–	Lowest Threshold of Human Hearing

Source: California Department of Transportation, Technical Noise Supplement, October 1998.

Several rating scales have been developed to analyze the adverse effects of community noise on people. Since environmental noise fluctuates over time, these scales consider that the effects of noise on people are largely dependent upon the total acoustical energy content of the noise, as well as the time of day when the noise occurs. Those that are applicable to this analysis are as follows:

- $L_{eq}$ : An  $L_{eq}$ , or equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the  $L_{eq}$  of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
- $L_{max}$ : The maximum instantaneous noise level experienced during a given period of time.
- $L_{min}$ : The minimum instantaneous noise level experienced during a given period of time.
- CNEL: The Community Noise Equivalent Level (CNEL) is a 24-hour average  $L_{eq}$  with a 5 dBA “weighting” during the hours of 7:00 p.m. to 10:00 p.m. and a 10 dBA “weighting” added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for

noise sensitivity in the evening and nighttime, respectively. The logarithmic effect of these additions is that a constant 60 dBA 24 hour  $L_{eq}$  would result in a CNEL of 66.7 dBA.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day, night, or over a 24-hour period. For residential uses, environmental noise levels are generally considered low when the CNEL is below 60 dBA, moderate in the 60 dBA to 70 dBA range, and high above 70 dBA. Frequent exposure to noise levels greater than 85 dBA over time can cause temporary or permanent hearing loss. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA, and quiet suburban residential streets with noise levels around 40 dBA.

Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate level noise environments are urban residential or semi-commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with more noisy urban residential or residential-commercial areas (60 to 75 dBA) or dense urban or industrial areas (65 to 80 dBA).

It is widely accepted that in the community noise environment the average healthy ear can barely perceive CNEL noise level changes of 3 dBA. CNEL changes from 3 to 5 dBA may be noticed by some individuals who are extremely sensitive to changes in noise. A 5 dBA CNEL increase is readily noticeable to most people, while the human ear perceives a 10 dBA CNEL increase as a doubling of sound. However, there is no direct correlation between increasing or even doubling noise-generating uses and what is detectable by the human ear as an increase in noise level. The human ear perceives a 10 dBA increase in sound level to be a doubling of sound volume, but doubling the sound energy, i.e., the noise-generating activity, only results in a 3 dBA increase in sound. This means that a doubling of sound wave energy (e.g., doubling the volume of traffic on a roadway) would result in a barely perceptible change in sound level to the human ear. Thus, relatively sizeable increases in baseline noise generation are not necessarily perceived as significant noise increases by the human ear.

Noise levels from a particular source generally decline as distance to the receptor increases. Other factors, such as the weather and reflective barriers, also help intensify or reduce the noise level at any given location. A commonly used rule of thumb for roadway noise is that for every doubling of distance from the source (assume a starting point of 50 feet), the noise level is reduced by about 3 dBA at acoustically “hard” locations (i.e., the area between the noise source and the receptor is nearly complete asphalt, concrete, hard-packed soil, or other solid materials) and 4.5 dBA at acoustically “soft” locations (i.e., the area between the source and receptor is normal earth or has vegetation, including grass). Noise from stationary or point sources is reduced by about 6 dBA to 7.5 dBA for every doubling of distance at acoustically hard and soft locations, respectively. Noise levels are also generally reduced by about 1 dBA for each 1,000 feet of distance due to air

absorption. Noise levels may also be reduced by intervening structures – generally, a single row of buildings between the receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm can reduce noise levels by 5 dBA to 10 dBA. The normal noise attenuation within residential structures with open windows is about 17 dBA, while the noise attenuation with closed windows is about 25 dBA.<sup>78</sup>

## 2. Fundamentals of Environmental Groundborne Vibration

Vibration is sound radiated through the ground. Vibration can result from a source (e.g., train operations, motor vehicles, machinery equipment) causing the adjacent ground to move and creating vibration waves that propagate through the soil to the foundations of nearby buildings. This effect is referred to as *groundborne vibration*. The peak particle velocity (PPV) or the root mean square (RMS) velocity is usually used to describe vibration levels. PPV is defined as the maximum instantaneous peak of the vibration level, while RMS is defined as the square root of the average of the squared amplitude of the level. PPV is typically used for evaluating potential building damage, while RMS velocity in decibels (VdB) is typically more suitable for evaluating human response.

The background vibration velocity level in residential areas is usually around 50 VdB. The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people. Most perceptible indoor vibration is caused by sources within buildings, such as the operation of mechanical equipment, movement of people, or slamming of doors. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the groundborne vibration from traffic is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings, such as historic buildings. The general human response to different levels of groundborne vibration velocity levels is described in **Table 5.5-2**.

**Table 5.5-2 Human Response to Different Levels of Groundborne Vibration**

Vibration Velocity Level	Human Perception
65 VdB	Approximate threshold of perception for many people.
75 VdB	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation-related vibration at this level is unacceptable.
85 VdB	Vibration acceptable only if there are an infrequent number of events per day.

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

<sup>78</sup> National Cooperative Highway Research Program Report 117, Highway Noise: A Design Guide for Highway Engineers, 1971.

## 5.5-2 Existing Conditions

### 1. Noise Sensitive Receptors

The City's Noise Element of the General Plan considers noise sensitive land uses as residential areas, hospitals, schools, and recreation areas where quiet is a basis for use. For purposes of this analysis, noise sensitive receptors within close proximity of the Project Site and having a line-of-sight to the Project construction areas have been graphically identified in **Figure 5.5-1, Noise Monitoring and Sensitive Receptor Location Map**. As shown therein, the following have been identified as noise sensitive receptors for purposes of this analysis: 1) residential use adjacent to site; 2) planned residential use 60 feet east; 3) senior housing 60 feet east; 4) planned residential use 300 feet northeast; 5) residential use 50 feet north; 6) residential use adjacent to the site; 7) religious/school institution 45 feet west; and, 8) park/passive open space area 110 feet southwest.

### 2. Measured Ambient Noise Levels

To establish baseline noise conditions, existing noise levels were monitored at five locations in the vicinity of the Project Site. The locations of where the noise measurements were taken are depicted in **Figure 5.5-1**. The noise survey was conducted on January 13, 2015 between approximately 12:00 p.m. and 10:30 p.m. using the 3M SoundPro SP DL-1 sound level meter, which conforms to industry standards set forth in ANSI S1.4-1983 (R2006) – Specification for Sound Level Meters/Type 1, and is consistent with the sound level meter definition established in YLMC §8.32.020. This instrument was calibrated and operated according to the manufacturer's written specifications. At the measurement sites, the microphone was placed at a height of approximately five feet above grade. The sound level meter was programmed to record the average sound level (Leq) over a cumulative period of 15 minutes.

The results of the measurements are summarized in **Table 5.5-3, Existing Daytime Noise Levels in the Vicinity of the Project Site**. As shown in **Table 5.5-3**, the ambient daytime noise levels ranged from 52.5 dBA Leq to 70.2 dBA Leq in the vicinity the Project Site. In addition to these daytime (time period defined as 7:00 a.m. to 7:00 p.m.) noise levels, evening (time period defined as 7:00 p.m. to 10:00 p.m.) and nighttime (time period defined as 10 PM to 7 AM) noise levels were also measured at Location 1. The evening ambient noise level was 65.1 dBA Leq at Location 1, and the nighttime ambient noise level was 61.5 dBA Leq at Location 1. These noise levels combined with the 62.1 dBA Leq during the daytime, equates to an estimated 68.7 dBA CNEL for the vicinity of Location 1. This CNEL calculation and all noise monitoring data files are provided in Sub-Appendix A to **Appendix 5.5** to this EIR.



**Figure 5.5-1**  
Noise Monitoring and Sensitive Receptor Location Map

**Table 5.5-3 Existing Daytime Noise Levels in the Vicinity of the Project Site**

Noise Measurement Location	Primary Noise Sources	Noise Levels (dBA)		
		L <sub>eq</sub>	L <sub>min</sub>	L <sub>max</sub>
1. East side of the intersection of Lemon Drive and Lakeview Avenue	Vehicles on Lemon Dr. and Lakeview Ave. (3-way stop sign); and pedestrian activity along Lakeview Ave.	62.1	46.8	73.9
2. Southwest side of Imperial Hwy, in front of the R.M. Nixon Park/passive open space area	Vehicles and pedestrian activity along Imperial Hwy and Yorba Linda Blvd.	70.2	52.7	83.1
3. East side of Main Street adjacent to Proposed Street "A" location.	Vehicles and pedestrian activity along Main St and Imperial Hwy.	54.6	46.2	72.9
4. West side of School Street adjacent to existing religious institution	Vehicles and pedestrian activity along School Street; and parking lot/pick up activity in adjacent parking lot to west.	56.2	45.9	68.4
5. West side of existing residential use fronting Lakeview Avenue	Vehicles along Lakeview Ave. and light residential maintenance activity.	52.5	46.5	68.4

Noise measurements were conducted on January 13, 2015. Noise monitoring data files are provided in Sub-Appendix A to Appendix 5.5

### 3. Existing Modeled Roadway Noise Levels

Existing roadway noise levels were calculated for 18 roadway segments located in proximity to the Project Site. The roadway segments selected for analysis are considered to be those that are expected to be most directly impacted by project-related traffic, which, for the purpose of this analysis, include the roadways that are nearest to the Project Site and had the most project-generated trips. These roadways, when compared to roadways located further away from the Project Site, would experience the greatest percentage increase in traffic generated by the Project.

Calculation of the existing roadway noise levels was accomplished using the Federal Highway Administration Highway Noise Prediction Model (FHWA-RD-77-108) and traffic volumes from the project traffic analysis. The model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. The average vehicle noise rates (energy rates) utilized in the FHWA Model have been modified to reflect average vehicle noise rates identified for California by Caltrans. The Caltrans data show that California automobile noise is 0.8 to 1.0 dBA higher than national levels and that medium and heavy truck noise is 0.3 to 3.0 dBA lower than national levels. The average daily noise levels along study area roadway segments are presented in **Table 5.5-4**.

**Table 5.5-4 Existing (2014) Roadway Noise Levels**

Roadway	Roadway Segment	Predominant Existing Land Use Along Segment	dBA CNEL
Lakeview Avenue	North of Lemon Dr.	Residential	65.8
	Between Lemon Dr. & Project Driveway 3	Residential/Commercial	66.3
	Between Project Driveway 3 & Yorba Linda Blvd.	Commercial	66.0
	South of Yorba Linda Blvd.	Residential/Commercial	67.3
School Street	South of Lemon Drive.	Residential	53.7
Main Street	Between Lemon Dr. & Proposed St. "A"	Commercial/Institutional	56.1
	Between Proposed St. "A" Project Driveway 1	Commercial	54.0
	Between Project Driveway 1 & Imperial Hwy.	Commercial	54.0
Imperial Highway	Northwest of Main St.	Commercial	73.4
	Between Main St. & Yorba Linda Blvd.	Commercial	73.4
	South of Yorba Linda Blvd.	Commercial	76.3
Lemon Drive	West of Main St.	Commercial	63.2
	Between Main St. & School St.	Residential/Commercial/ Institutional	63.3
	Between School St. & Valencia Ave.	Residential/Commercial	63.5
	Between Valencia Ave. & Lakeview Ave.	Residential	63.6
Yorba Linda Blvd.	West of Imperial Hwy.	Commercial	70.8
	Between Imperial Hwy & Lakeview Ave.	Commercial	72.1
	East of Lakeview Ave.	Commercial/Residential	72.1

Traffic data: Yorba Linda Commons Traffic Impact Analysis, Urban Crossroads, February 5, 2015.  
Calculations provided in Sub-Appendix B to Appendix 5.5.

#### 4. Existing Groundborne Vibration Levels

The main sources of groundborne vibration near the Project Site are heavy-duty vehicular travel (e.g., refuse trucks, delivery trucks, and transit buses) on local roadways. Trucks and buses typically generate groundborne vibration velocity levels of around 63 VdB at 50 feet, and these levels could reach 72 VdB where trucks and buses pass over bumps in the road.<sup>79</sup> In terms of PPV levels, a heavy-duty vehicle traveling at a distance of 50 feet can result in a vibration level of approximately 0.001 inch per second.

### 5.5-3 Regulatory Setting

#### 1. Federal Standards

##### Noise

There are no federal noise standards that directly regulate environmental noise related to the construction or operation of the Project. However, the Office of Safety and Health Administration (OSHA) regulations safeguard the hearing of workers exposed to occupational noise.

<sup>79</sup> FTA, Transit Noise and Vibration Impact Assessment, May 2006.

## Vibration

The Federal Transit Administration (FTA) has adopted vibration standards that are used to evaluate potential building damage impacts related to construction activities. The vibration damage criteria adopted by the FTA are shown in **Table 5.5-5**.

**Table 5.5-5 Construction Vibration Damage Criteria**

Building Category	PPV (in/sec)
I. Reinforced-concrete, steel or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Non-engineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12

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

The FTA has also adopted standards associated with human annoyance for groundborne vibration impacts for the following three land-use categories: 1) Vibration Category 1 – High Sensitivity, 2) Vibration Category 2 – Residential, and 3) Vibration Category 3 – Institutional. The FTA defines Category 1 as buildings where vibration would interfere with operations within the building, including vibration-sensitive research and manufacturing facilities, hospitals with vibration-sensitive equipment, and university research operations. Vibration-sensitive equipment includes, but is not limited to, electron microscopes, high-resolution lithographic equipment, and normal optical microscopes. Category 2 refers to all residential land uses and any buildings where people sleep, such as hotels and hospitals. Category 3 refers to institutional land uses such as schools, churches, other institutions, and quiet offices that do not have vibration-sensitive equipment, but still have the potential for activity interference.

Under conditions where an infrequent number of events occur per day, the FTA has established thresholds of 65 VdB for Category 1 buildings, 80 VdB for Category 2 buildings, and 83 VdB for Category 3 buildings.<sup>80</sup> Under conditions where there are an occasional number of events per day, the FTA has established thresholds of 65 VdB for Category 1 buildings, 75 VdB for Category 2 buildings, and 78 VdB for Category 3 buildings.<sup>81</sup> Under conditions where there are a frequent number of events per day, the FTA has established thresholds of 65 VdB for Category 1 buildings, 72 VdB for Category 2 buildings, and 75 VdB for Category 3 buildings.<sup>82</sup> No thresholds have been adopted or recommended for commercial or office uses.

80 “Infrequent events” are defined by the FTA as being fewer than 30 vibration events of the same kind per day. FTA, Transit Noise and Vibration Impact Assessment, May 2006.

81 “Occasional events” are defined by the FTA as between 30 and 70 vibration events of the same source per day. FTA, Transit Noise and Vibration Impact Assessment, May 2006.

82 “Frequent events” are defined by the FTA as more than 70 vibration events of the same source per day. FTA, Transit Noise and Vibration Impact Assessment, May 2006.

## 2. State Standards

### Noise

The California Department of Health Services has established guidelines for evaluating the compatibility of various land uses as a function of community noise exposure. These guidelines for land use and noise exposure compatibility are shown in **Table 5.5-6, Community Noise Exposure**. In addition, §65302(f) of the *California Government Code* requires each county and city in the state to prepare and adopt a comprehensive long-range general plan for its physical development, with §65302(g) requiring a noise element to be included in the general plan. The noise element must: 1) identify and appraise noise problems in the community; 2) recognize Office of Noise Control guidelines; and 3) analyze and quantify current and projected noise levels.

**Table 5.5-6 Community Noise Exposure**

Land Use	Normally Acceptable <sup>a</sup>	Conditionally Acceptable <sup>b</sup>	Normally Unacceptable <sup>c</sup>	Clearly Unacceptable <sup>d</sup>
Single-Family, Duplex, Mobile Homes	50 - 60	55 - 70	70 - 75	above 75
Multi-Family Homes	50 - 65	60 - 70	70 - 75	above 75
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 - 70	60 - 70	70 - 80	above 80
Transient Lodging – Motels, Hotels	50 - 65	60 - 70	70 - 80	above 75
Auditoriums, Concert Halls, Amphitheaters	---	50 - 70	---	above 70
Sports Arena, Outdoor Spectator Sports	---	50 - 75	---	above 75
Playgrounds, Neighborhood Parks	50 - 70	---	67 - 75	above 75
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 - 75	---	70 - 80	above 80
Office Buildings, Business and Professional Commercial	50 - 70	67 - 77	above 75	---
Industrial, Manufacturing, Utilities, Agriculture	50 - 75	70 - 80	above 75	---

a Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

b Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

c Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

d Clearly Unacceptable: New construction or development should generally not be undertaken.

Source: Office of Planning and Research, State of California General Plan Guidelines, October 2003 (in coordination with the California Department of Health Services (DHS)).

### Vibration

No state vibration standards apply to the Proposed Project. Moreover, according to the Caltrans Transportation- and Construction-Induced Vibration Guidance Manual (2004), there are no official Caltrans standards for vibration. However, this manual provides guidelines for assessing vibration damage potential to various types of buildings, ranging from 0.08 to 0.12 inches per second for extremely fragile historic buildings, ruins, and ancient monuments, to 0.50 to 2.0 inches per second for modern industrial and commercial buildings.

### 3. Local Standards

#### City of Yorba Linda General Plan Noise Element

The City's Noise Element of the General Plan considers noise sensitive land uses as residential areas, hospitals, schools, and recreation areas where quiet is a basis for uses. Less sensitive uses include libraries, churches, commercial facilities, and industrial areas. The noise standards establish maximum limits for new land uses in the City. These standards are also designed to protect existing land uses, including transportation and industry, from encroaching urban uses. **Table 5.5-7** depicts the interior and exterior noise standards for General Plan land use designations.

**Table 5.5-7 General Plan Land Use Noise Standards**

General Plan Land Use Designation	Interior Standard	Exterior Standard
Residential, including public institutions and hospitals	45	65
Neighborhood Commercial; General Commercial	--	70
Office Commercial	50	70
Light Industrial/Business Park	55	75
Open Space	--	70*

\*Where quiet is a basis for use.

Source: City of Yorba Linda, General Plan Update, Noise, 1993, Table N-2.

#### City of Yorba Linda Municipal Code

Title 8, Chapter 8.32 and Chapter 15.48 of the City of Yorba Linda Municipal Code (YLMC) establishes regulations and general administrative procedures to prevent unnecessary, excessive, and annoying sound levels in the City that are detrimental to the public health, welfare, and safety or which are contrary to the public interest.

- YLMC §8.32.060 - Noise standards— Exterior  
Exterior noise standards are set for noise sensitive land uses and other nonresidential land uses. These standards consider noise sensitive land uses as residential areas, hospitals, schools, and recreation areas. The exterior noise standards presented in **Table 5.5-8**, apply to all residential property designated within the City (Noise Zone 1).

**Table 5.5-8 Municipal Code Noise Standards - Exterior**

Land Use	Noise Level	Time Period
Noise Zone 1 (All Residential)	55 dBA	7:00 a.m. – 10:00 p.m.
	50 dBA	10:00 p.m. – 7:00 p.m.

With respect to these exterior standards, YLMC §8.32.060 further states:

- B. It is unlawful for any person, at any location within the City, to create any noise which causes the noise level when measured on any residential property to exceed:
    - 1. The noise standard for a cumulative period of more than thirty minutes in any hour;
    - 2. The noise standard plus five dB(A) for a cumulative period of more than fifteen minutes in any hour;
    - 3. The noise standard plus ten dB(A) for a cumulative period of more than five minutes in any hour;
    - 5. The noise standard plus fifteen dB(A) for a cumulative period of more than one minute in any hour; or
    - 6. The noise standard plus twenty dB(A) for any period of time.
  - C. In the event the ambient noise level exceeds any of the five noise limit categories stated in subsection B of this section, the cumulative period applicable to said category shall be increased to reflect said ambient noise level. Furthermore, the maximum permissible noise level shall never exceed the maximum ambient noise level.
  - D. Each of the noise limits specified in this section shall be reduced by five dB(A) for impact or simple tone noises or for noises consisting of speech or music.
- YLMC §8.32.070 - Noise standards—Interior

With respect to interior noise standards, YLMC §8.32.070 states:

- A. It is unlawful for any person at any location within the City to create any noise which causes the noise level when measured within a dwelling unit on any residential property during the period ten p.m. to seven a.m. to exceed:
  - 1. Forty-five dB(A) for a cumulative period of more than five minutes in any hour;
  - 2. Fifty dB(A) for a cumulative period of more than one minute in any hour; or
  - 3. Fifty-five dB(A) for any period of time.
- B. In the event that the ambient noise level exceeds any of the above three noise limit categories, the cumulative period applicable to said category shall be increased to reflect said ambient noise level. Furthermore, the maximum permissible noise level shall never exceed the maximum ambient noise level.

As stated in YLMC §8.32.090.D (Exemptions) and further discussed below, noise sources associated with construction, repair, remodeling, or grading of any real

property, provided said activities do not take place between the hours of eight p.m. and seven a.m. on weekdays, including Saturday, or at any time on Sunday or a federal holiday are exempt from §8.32 of the YLMC.

### Construction Noise

YLMC §15.48.010 states:

... any construction or maintenance activity on real property that may disturb the peace and comfort of the inhabitants of the neighborhood or comfortable enjoyment of life and property such as, but not limited to, grading operations, equipment operations, construction, repair, remodeling or maintenance of any real property, excepting noise sources associated with the regular maintenance of residential property such as, but not limited to, lawn maintenance, and excepting noise sources associated with the maintenance of real property owned or operated by a public entity, such as golf courses, parks, playgrounds, and school grounds, is prohibited between the hours of eight p.m. and seven a.m., weekdays, including Saturday or any time on Sunday or a federal holiday unless said work is of an emergency nature or a prior permit has been obtained from the Community Development Director.

#### 5.5-4 Thresholds of Significance

In accordance with Appendix G to the CEQA Guidelines, the Project would have a significant impact on noise if it would cause any of the following conditions to occur:

- a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels;
- c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;
- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airstrip, expose people residing or working in the project area to excessive noise levels; or
- f) For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

The project site is not located within an airport land use plan, is not located within 2 miles of a public or public-use airport, and is not located within the vicinity of a private airstrip. Therefore, no impacts with respect to criterion e) and f) would occur and no further analysis is required.

The CEQA Guidelines do not define the levels at which groundborne vibration or groundborne noises are considered “excessive.” Thus, in terms of construction-related vibration impacts on buildings, the adopted guidelines and recommendations by the FTA to limit groundborne vibration based on the age and/or condition of the structures that are located in close proximity to construction activity are used in this analysis to evaluate potential groundborne vibration impacts. Based on the FTA criteria, construction impacts relative to groundborne vibration would be considered significant if the following were to occur:

- Project construction activities would cause a PPV groundborne vibration level to exceed 0.5 inches per second at any building that is constructed with reinforced-concrete, steel, or timber;
- Project construction activities would cause a PPV groundborne vibration level to exceed 0.3 inches per second at any engineered concrete and masonry buildings;
- Project construction activities would cause a PPV groundborne vibration level to exceed 0.2 inches per second at any non-engineered timber and masonry buildings; or
- Project construction activities would cause a PPV ground-borne vibration level to exceed 0.12 inches per second at any historical building or building that is extremely susceptible to vibration damage.

In terms of groundborne vibration impacts associated with human annoyance, this analysis uses the FTA’s vibration impact thresholds for sensitive buildings, residences, and institutional land uses under conditions where there are a frequent number of events per day, which would provide for the most conservative vibration analysis. These thresholds are 65 VdB at buildings where vibration would interfere with interior operations, 72 VdB at residences and buildings where people normally sleep, and 75 VdB at other institutional buildings.<sup>83</sup> The 65 VdB threshold applies to typical land uses where vibration would interfere with interior operations, including vibration-sensitive research and manufacturing facilities, hospitals with vibration-sensitive equipment, and university research operations. Vibration-sensitive equipment includes, but is not limited to, electron microscopes, high-resolution lithographic equipment, and normal optical microscopes. The 72 VdB threshold applies to all residential land uses and any buildings where people sleep, such as hotels and hospitals. The 75 VdB threshold applies to institutional land uses such as schools, churches, other institutions, and quiet offices that do not have vibration-sensitive equipment, but still have the potential for activity interference.

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83 FTA, Transit Noise and Vibration Impact Assessment, May 2006.

The CEQA Guidelines do not define the levels at which noise would be considered substantial increases. Thus, for purposes of this analysis, the Project would normally have a significant impact on noise levels from project operations if the project causes the ambient noise level measured at the property line of affected uses to increase by 3 dBA if the total ambient noise levels without the Project exceed the City's General Plan exterior noise standards, or any 5 dBA or greater noise increase when total ambient noise levels without the Project are within the City's General Plan exterior noise standards (see **Table 5.5-7, General Plan Land Use Noise Standards**, page 5-115).

### 5.5-5 Impacts Analysis

**Impact 5.5-1: Would the project expose persons to or generate noise level in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

Construction of the Project would require the use of heavy equipment for demolition of the existing on-site structures, grading, installation of new utilities, and building fabrication for the proposed development. Development activities would also involve the use of smaller power tools, generators, and other sources of noise. During each stage of development, a different mix of equipment would be operating and noise levels would vary based on the amount of equipment in operation and the location of the activity.

The U.S. EPA has compiled data regarding the noise generating characteristics of specific types of construction equipment and typical construction activities. The data pertaining to the types of construction equipment and activities that would occur at the Project Site are presented in **Table 5.5-9, Noise Range of Typical Construction Equipment**, and **Table 5.5-10, Typical Outdoor Construction Noise Levels**, respectively. The noise levels shown in **Table 5.5-10** represent composite noise levels associated with typical construction activities, which take into account both the number of pieces and spacing of heavy construction equipment that are typically used during each phase of construction. As shown in **Table 5.5-10**, construction noise during the heavier initial periods of construction is presented as 86 dBA  $L_{eq}$  when measured at a reference distance of 50 feet from the center of construction activity.<sup>84</sup> These noise levels would diminish notably with distance from the construction site at a rate of 6 dBA per doubling of distance (noise from stationary or point sources is reduced by about 6 dBA for every doubling of distance at acoustically hard locations). For example, a noise level of 86 dBA  $L_{eq}$  measured at 50 feet from the noise source to the receptor would decline to 80 dBA  $L_{eq}$  at 100 feet from the source to the receptor, and fall by another 6 dBA  $L_{eq}$  to 74 dBA  $L_{eq}$  at 200 feet from the source to the receptor. These noise attenuation rates assume a flat and unobstructed

<sup>84</sup> Although the peak noise levels generated by certain construction equipment may be greater than 86 dBA at a distance of 50 feet, the equivalent composite noise level would be approximately 86 dBA  $L_{eq}$  (i.e., the equipment does not operate at the peak noise level over the entire duration).

distance between the noise generator and the receptor. Intervening structures and vegetation would further attenuate the noise.

**Table 5.5-9 Noise Range of Typical Construction Equipment**

Construction Equipment	Noise Level in dBA $L_{eq}$ at 50 Feet*
Front Loader	73-86
Trucks	82-95
Cranes (moveable)	75-88
Cranes (derrick)	86-89
Vibrator	68-82
Saws	72-82
Pneumatic Impact Equipment	83-88
Jackhammers	81-98
Pumps	68-72
Generators	71-83
Compressors	75-87
Concrete Mixers	75-88
Concrete Pumps	81-85
Back Hoe	73-95
Tractor	77-98
Scraper/Grader	80-93
Paver	85-88

\*Machinery equipped with noise control devices or other noise-reducing design features does not generate the same level of noise emissions as that shown in this table.

Source: U.S. EPA, Noise from Construction Equipment and Operations, Building Equipment and Home Appliances, PB 206717, 1971.

**Table 5.5-10 Typical Outdoor Construction Noise Levels**

Construction Phase	Noise Levels at 50 Feet with Mufflers (dBA $L_{eq}$ )	Noise Levels at 100 Feet with Mufflers (dBA $L_{eq}$ )	Noise Levels at 200 Feet with Mufflers (dBA $L_{eq}$ )
Ground Clearing	82	76	70
Excavation, Grading	86	80	74
Foundations	77	71	65
Structural	83	77	71
Finishing	86	80	74

Source: U.S. EPA, Noise from Construction Equipment and Operations, Building Equipment and Home Appliances, PB 206717, 1971.

Based on this information, noise sensitive receptors located within 50 feet of the Project Site boundaries could experience intermittent construction noise levels greater than 86 dBA  $L_{eq}$ . This would include Sensitive Receptor Nos. 1, 5, 6, and 7. Noise sensitive receptors located within 50 to 100 feet of the Project Site boundaries could experience intermittent construction noise levels of approximately 80 to 86 dBA  $L_{eq}$ . This would include Sensitive Receptor Nos. 2 and 3. Noise sensitive receptors located within 100 to 200 feet of the Project Site boundaries could experience intermittent construction noise levels of approximately 74 to 80 dBA  $L_{eq}$ . This would include Sensitive Receptor No. 8. The Project's construction-related noise levels at the above mentioned sensitive receptors would exceed the City's exterior noise standards identified previously. Sensitive Receptor No. 4, located more than 300 feet north of the Project

Site, would not experience perceptible noise increases over ambient noise levels during construction. As mentioned previously, 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 are exempt from the City's exterior noise standards. Nevertheless, as construction-related noise levels would be considered a temporary nuisance on the vicinity of the Project Site, construction-related noise impacts would be considered potentially significant.

### **Level of Significance Before Mitigation**

Potentially significant.

### **Mitigation Measures**

- MM 5.5-1 Construction activities shall 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.
- MM 5.5-2 Noise and groundborne vibration construction activities whose specific location on the Project Site may be flexible (e.g., operation of compressors and generators, cement mixing, general truck idling) shall be conducted as far as possible from the nearest off-site land uses.
- MM 5.5-3 When possible, construction activities shall be scheduled so as to avoid operating several pieces of equipment simultaneously, which causes high noise levels.
- MM 5.5-4 Flexible sound control curtains shall be placed around all drilling apparatuses, drill rigs, and jackhammers when in use.
- MM 5.5-5 The Project contractor shall use power construction equipment with state-of-the-art noise shielding and muffling devices.
- MM 5.5-6 Barriers such as plywood structures or flexible sound control curtains shall be erected around the Project Site boundary to minimize the amount of noise on the surrounding land uses to the maximum extent feasible during construction.
- MM 5.5-7 All construction truck traffic shall be restricted to truck routes approved by the Building Department, which shall avoid residential areas and other sensitive receptors to the extent feasible.
- MM 5.5-8 A construction notice shall be prepared and shall include the following information: job site address, permit number, name and phone number of the contractor and owner or owner's agent, hours of construction allowed by code or any discretionary approval for the site, and City telephone numbers where violations can be reported. The notice shall be posted and maintained at the construction site prior to the start of construction and displayed in a location that is readily visible to the public and approved by the City's Building Department.

### Level of Significance After Mitigation

Construction-related impacts are anticipated to be less than significant.

### Movement of Construction Equipment and Workers

In addition to equipment noise, the movement of equipment and workers onto the Project Site during construction would generate temporary traffic noise along access routes to the project areas. The major pieces of heavy equipment would be moved into the development areas once for each construction stage, and would have a less than significant short-term effect on traffic noise levels for this reason. In addition, daily transportation of construction workers during the building construction phase is expected to cause increases in noise levels along streets in the area, although noise levels from such trips would be less than peak hour noise levels generated by project trips during project operation. Given that it takes a doubling of average daily trips on roadways to increase noise by 3 dB(A) and that the maximum amount of construction workers traveling to the project site would not cause a doubling of average daily trips in the immediate area, the noise level increases along major arterials surrounding the project site would be less than 3 dB(A).

### Level of Significance Before Mitigation

Less than significant.

### Mitigation Measures

No mitigation is required.

### Level of Significance After Mitigation

With the noise characteristics of typical construction equipment, construction-related noise impacts are anticipated to be less than significant.

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#### **Impact 5.5-2: Would the project expose persons to or generate excessive ground-borne vibration or ground-borne noise levels?**

### Construction-Related Groundborne Vibration

Construction activities that would occur within the Project Site would have the potential to generate low levels of groundborne vibration. **Table 5.5-11, Vibration Source Levels for Construction Equipment**, identifies various PPV and RMS velocity (in VdB) levels for the types of construction equipment that would operate during the construction of the Project. Based on the information presented in **Table 5.5-11**, vibration velocities could reach as high as approximately 0.089 inches per second PPV at 25 feet from the source activity, depending on the type of construction equipment in use. This corresponds to a RMS velocity level (in VdB) of 87 VdB at 25 feet from the source activity.

**Table 5.5-11 Vibration Source Levels for Construction Equipment**

Equipment	Approximate PPV (in/sec)				Approximate RMS (VdB)			
	25 Feet	50 Feet	75 Feet	100 Feet	25 Feet	50 Feet	75 Feet	100 Feet
Large Bulldozer	0.089	0.031	0.017	0.011	87	78	73	69
Caisson Drilling	0.089	0.031	0.017	0.011	87	78	73	69
Loaded Trucks	0.076	0.027	0.015	0.010	86	77	72	68
Jackhammer	0.035	0.012	0.007	0.004	79	70	65	61
Small Bulldozer	0.003	0.001	0.0006	0.0004	58	49	44	40

Note: in/sec = inches per second

Source: FTA, Transit Noise and Vibration Impact Assessment, Final Report, 2006.

With respect to human annoyance, residential sensitive receptors located within 75 feet of the Project Site boundaries (Sensitive Receptor Nos. 1, 2, 3, 5, and 6) could experience construction related vibration levels of up to approximately 73-87 VdB. These levels would exceed the FTA's vibration impact threshold of 72 VdB for residences and buildings where people normally sleep. With respect to the religious/school institution (Sensitive Receptor No. 7), construction vibration levels could reach approximately 78 to 87 VdB. This would exceed the FTA's vibration impact threshold of 75 VdB for institutional buildings. Sensitive Receptor Nos. 4 and 8 located more than 100 feet from the Project Site would not experience construction related vibration levels greater than 69 VdB, and thus would not exceed thresholds. However, similar to construction noise sources, vibration 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 would be considered exempt from the vibration thresholds.

Nevertheless, as construction-related vibration levels would be considered a temporary nuisance on the vicinity of the Project Site, construction-related vibration impacts associated with human annoyance would be considered potentially significant.

While construction of the Project could demolish three locally eligible historical resources that are located within the Project Site, at 4842, 4852, and 4871 School Street, heavy project construction activities would not occur within close proximity to any known off-site historical building or building that is extremely susceptible to vibration damage. As discussed previously, vibration thresholds relative to historic and potentially historic buildings are more restrictive than the threshold for non-engineered timber and masonry buildings. Specifically, Project construction activities could result in significant impacts if a PPV ground-borne vibration level was to exceed 0.12 inches per second at any historical building or building that is extremely susceptible to vibration damage. As there are no known off-site historical buildings or buildings that are extremely susceptible to vibration damage within 25 feet of heavy project construction activities (resulting in a peak PPV of 0.089 in/sec), there is no potential for the Project to generate ground-borne vibration levels that exceed the

threshold of 0.12 inches per second at a historical building, or any building that is extremely susceptible to vibration damage. Thus, impacts with respect to building damage would be less than significant.

### **Level of Significance Before Mitigation**

Potentially significant.

### **Mitigation Measures**

Mitigation Measures MM 5.5-1 through MM 5.5-8

### **Level of Significance After Mitigation**

Implementation of Mitigation Measures MM 5.5-1 through MM 5.5-8 would reduce construction/ vibration impacts to less than significant.

**Impact 5.5-3: Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?**

### **Operational Noise Impacts**

#### **Traffic Noise**

The increase in traffic resulting from implementation of the Project would increase ambient noise levels at off-site locations in the Project vicinity. These concerns were addressed using the FHWA-RD-77-108 model, which calculates the CNEL noise level for a particular reference set of input conditions, based on site-specific traffic volumes, distances, speeds and/or noise barriers. Based on the traffic analysis prepared for the Project in combination with an analysis of the surrounding land uses, roadway noise levels were forecasted to determine if the Project's vehicular traffic would result in a significant impact at off-site locations.

Off-site locations in the Project vicinity would experience a slight increase in noise resulting from the additional traffic generated by the Project. The Project-related increases in noise levels at selected roadway segments located in proximity to the Project Site are identified in **Table 5.5-12, Existing Plus Project (2014) Roadway Noise Levels**. **Table 5.5-12** identifies the change in noise levels along the study-area roadway segments between the Existing (2014) scenario and the Existing Plus Project (2014) scenario. As shown in **Table 5.5-12**, the Project would increase local noise levels by a maximum of 3.3 dBA CNEL during the Existing Plus Project (2014) scenario for the roadway segment of School Street south of Lemon Drive. All other roadway segments would not experience noise level increases by more than 1.8 dBA CNEL and these increases would be less than the 3 dBA and 5 dBA CNEL thresholds identified

previously. With respect to the 3.3 dBA CNEL increase for the roadway segment of School Street south of Lemon Drive, the total resulting noise level would be approximately 57.0 dBA CNEL, which would be under the acceptable exterior noise standards identified in the City's General Plan and the 5 dBA CNEL increase threshold would be applied to this condition. As such, the 3.3 dBA CNEL increase for the roadway segment of School Street south of Lemon Drive would not exceed the 5 dBA CNEL threshold of significance, and off-site traffic noise levels associated with the Project would be less than significant.

**Table 5.5-12 Existing Plus Project (2014) Roadway Noise Levels**

Roadway	Roadway Segment	dBA CNEL		
		Existing (2014)	Existing Plus Project (2014)	Net Increase
Lakeview Avenue	North of Lemon Dr.	65.8	66.3	0.5
	Between Lemon Dr. & Project Driveway 3	66.3	66.4	0.1
	Between Project Driveway 3 & Yorba Linda Blvd.	66.0	66.8	0.8
	South of Yorba Linda Blvd.	67.3	67.5	0.2
School Street	South of Lemon Drive.	53.7	57.0	3.3
Main Street	Between Lemon Dr. & Proposed St. "A"	56.1	56.3	0.2
	Between Proposed St. "A" Project Driveway 1	54.0	55.8	1.8
	Between Project Driveway 1 & Imperial Hwy.	54.0	55.8	1.8
Imperial Highway	Northwest of Main St.	73.4	73.4	0.0
	Between Main St. & Yorba Linda Blvd.	73.4	73.4	0.0
	South of Yorba Linda Blvd.	76.3	76.3	0.0
Lemon Drive	West of Main St.	63.2	63.9	0.7
	Between Main St. & School St.	63.3	63.9	0.6
	Between School St. & Valencia Ave.	63.5	64.1	0.6
	Between Valencia Ave. & Lakeview Ave.	63.6	64.4	0.8
Yorba Linda Blvd.	West of Imperial Hwy.	70.8	70.8	0.0
	Between Imperial Hwy & Lakeview Ave.	72.1	72.4	0.3
	East of Lakeview Ave.	72.1	72.3	0.2

Traffic data: Yorba Linda Commons Traffic Impact Analysis, Urban Crossroads, February 5, 2015.  
Calculations provided in Sub-Appendix B to Appendix 5.5.

### Parking Noise

Parking will be provided by a combination of a parking structure located to the north of the commons area and surface parking distributed across the site achieving a ratio of approximately 5.05 to 4.26 stalls per 1,000 square feet of gross leasable area (GLA), or approximately 647 cars. The above-grade parking levels associated with the parking structure would be open-air, but would include screening to improve the visual qualities of the structures, and attenuate noise sources occurring within the structure. Various noise events would occur periodically from the parking uses. Such periodic events would include activation of car alarms, sounding of car horns, slamming of car doors, engine revs, and tire squeals. Automobile movements would comprise the most

continuous noise source and would generate a noise level of approximately 65 dBA at a distance of 25 feet. Car alarm and horn noise events generate sound levels as high as 75 dBA at a reference distance of 25 feet; however, these noise sources would be sporadic. Thus, these parking related noise sources would not have the potential to exceed the City's exterior noise standard of 75 dBA at off-site locations for any time period. It should also be noted that the existing urbanized vicinity currently generates noise levels associated with parking and vehicular noise sources identified above. Although the Project would increase the number of vehicles parking on-site, the types of noise would be similar to those currently occurring on and around the urbanized Project Site. While periodic noise levels from car alarms, horns, slamming of doors, etc., would increase as a result of the Project, these events would not occur consistently over a 24-hour period and thus would not have the potential to increase ambient noise levels at off-site locations by 5 dBA CNEL or more, nor exceed the City's exterior noise standard of 75 dBA for any time period as noted above. As such, noise impacts from the parking structure and surface parking areas would be considered less than significant.

### **Stationary Noise Sources**

As part of the Project, new mechanical equipment, HVAC units, and exhaust fans could be installed on the roof of the proposed new structures. Although the operation of this equipment would generate noise, the design of these on-site HVAC units and exhaust fans would be required to comply with the regulations of the YLMC, including but not limited to, YLMC §18.10.110 (Performance Standards) and §18.26.080 (Screening). These regulations state such equipment shall be located at least 15 feet from any habitable opening of a structure on an adjacent property, and shall be so operated that they do not disturb the peace, quiet and comfort of neighboring residents and shall be screened from surrounding properties and streets. Specifically, any equipment, whether on the roof, side of structure, or ground, shall be screened. The method of screening shall be architecturally compatible in terms of materials, color, shape, and size. The screening design shall blend with the building design and include landscaping when on the ground. All roof-mounted equipment, except for solar panels meeting standards of the Uniform Building Code, including but not limited to air conditioning units, lighting fixtures, and mechanical equipment, shall be shielded and architecturally screened from view from on-site parking areas, adjacent public streets, and adjacent residentially-zoned property. The screening material must be compatible with and integrated into the architectural design of the structure. The regulations of the YLMC are expected to ensure stationary noise sources would meet City exterior noise standards. As the Project would be required to comply with these regulations, potential impacts related to stationary noise sources would be considered less than significant.

### Operational Vibration Impacts

The Project would not include any stationary equipment that would result in excessive vibration levels. Groundborne vibration at the Project Site and immediate vicinity currently result from heavy-duty vehicular travel (e.g., refuse trucks and transit buses) on the nearby local roadways, and the proposed land uses at the Project Site would not result in substantial increased use of these heavy-duty vehicles. While refuse trucks would be used for the disposal of solid waste at the Project Site, these trips are already occurring within the neighborhood and only occur once a week. The number of transit buses that travel along adjacent roadways would also not substantially increase due to the Project. Thus, vibration impacts associated with operation of the Project would be less than significant.

### Level of Significance Before Mitigation

Less than significant.

### Mitigation Measures

No mitigation are required.

#### **Impact 5.5-4: Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?**

Please see **Impact 5.5-1** (page 5-119 above) regarding substantial temporary or periodic increase in ambient noise levels due to construction.

### Level of Significance Before Mitigation

Potentially significant.

### Mitigation Measures

Mitigation measure MM 5.5-1 shall be implemented.

### Level of Significance After Mitigation

With implementation of construction mitigation impacts would be less than significant.

### 5.5-6 General Plan Consistency

Implementation of the Proposed Project would be subject to the policies set forth in the City of Yorba Linda General Plan. **Table 5.5-13** outlines the applicable policies the City's General Plan and the Proposed Project's consistency with each of these policies. As shown, the Proposed Project would be consistent with all the applicable General Plan policies.

**Table 5.5-13 Consistency with the General Plan**

<b>Policy</b>	<b>Project Consistency/Comment</b>
<b>Goal 1: Indoor and outdoor living areas that are adequately protected from transportation noise impacts.</b>	
<b>Policy 1.1:</b> Construct sound barriers to mitigate excessive noise levels where necessary or where feasible.	<b>Consistent.</b> The Proposed Project would not generate excessive noise levels above those identified by the City's Municipal Code and the City's General Plan.
<b>Policy 1.2:</b> Require the inclusion of noise mitigation measures in the design of new roadway projects.	<b>Consistent.</b> The Proposed Project would be required to implement all design requirements of the previously adopted Specific Plan.
<b>Policy 1.3:</b> Ensure the effective enforcement of City, State and Federal noise levels by all appropriate City divisions.	<b>Not applicable.</b> This is the responsibility of the City of Yorba Linda.
<b>Policy 1.4:</b> Encourage alternative transportation modes such as walking, bicycling and transit to minimize noise within sensitive receptor areas.	<b>Consistent.</b> The Specific Plan Chapter 5: Mobility and Circulation lists a number of parking strategies and alternative transportation modes. Parking Strategies would include implementation mechanisms that: (i) could incorporate "shared" parking spaces, (ii) establish an in-lieu fee program, and/or (iii) establish a valet parking program or off-site performing arts center parking for employees which would include a shuttle service. There are seven bus stops around the edges of the Specific Plan project boundary with numerous bus transit routes operating seven days a week. The Specific Plan includes a future bus stop along School Street which would total eight bus stops within or adjacent to the project site that would be available for visitors or residents use. The closest trail to the project site is the multi-purpose El Cajon Trail trending southeast to northwest, extending from the junction at the Fullerton Trail in the north, to the Santa Ana River Trail in the south. The El Cajon Trail includes a combination of bicycling, riding and hiking. The Specific Plan also proposes bicycle facilities within the Specific Plan area (there are no current facilities).
<b>Goal 2: Land use planning decisions that incorporate noise considerations.</b>	
<b>Policy 2.1:</b> Establish acceptable noise levels for various land uses.	<b>Consistent.</b> The City's General Plan has established land use compatibility noise standards. The City's Municipal Code has established time constraints for construction activity in relation to the construction noise. The Proposed Project conforms to these standards.
<b>Policy 2.2:</b> Require acceptable noise levels near schools, hospitals, convalescent homes and other noise sensitive areas.	<b>Consistent.</b> Proposed land uses would have consistent noise standards. There would be no impacts to sensitive land uses.
<b>Policy 2.3:</b> Locate noise tolerant land uses in areas committed to noise producing uses.	<b>Consistent.</b> Heavy commercial uses would be located to the interior of the project and along Lakeview Drive.
<b>Policy 2.4:</b> Adopt measures which alter, prohibit or mitigate noise generating uses through site design.	<b>Consistent:</b> The Specific Plan incorporates measures to minimize noise generating impacts.
<b>Goal 3: Control non-transportation noise impacts.</b>	
<b>Policy 3.1:</b> Enforce the City Noise Ordinance to mitigate noise conflicts.	<b>Consistent.</b> The Proposed Project would conform to the City's Noise Ordinance in regards to construction related noise.
<b>Policy 3.2:</b> Develop and implement measures to reduce noise generated by construction activities.	<b>Consistent.</b> The Proposed Project would incorporate noise mitigation to reduce construction noise, as applicable (Mitigation Measure 5.5-1).
<b>Policy 3.3:</b> Establish and maintain coordination among City agencies involved in noise abatement.	<b>Not applicable.</b> This is the responsibility of the City of Yorba Linda.

Policy	Project Consistency/Comment
<b>Goal 4: Noise and land use compatibility.</b>	
<b>Policy 4.1:</b> Promote increased awareness concerning the effects of noise and suggest methods by which the public can be of assistance in reducing noise.	<b>Not applicable.</b> The City of Yorba Linda is responsible for promoting awareness concerning effects of noise and methods by which the public can be of assistance in reducing noise.
<b>Policy 4.2:</b> Require that noise from motors, appliances, air conditioners and other consumer products does not disturb the occupants of surrounding properties.	<b>Consistent.</b> Given the location of the Project, motors, appliances, air conditioners and other consumer products would not disturb the occupants of surrounding properties.
<b>Goal 5: Project approvals that include conditions to mitigate noise impacts.</b>	
<b>Policy 5.1:</b> Utilize site design techniques as a primary means to minimize noise impacts.	<b>Consistent.</b> The previously approved Specific Plan would incorporate a 20-foot-wide landscape buffer along Imperial Highway and Yorba Linda Boulevard. The Specific Plan would locate retail and commercial uses along Imperial Highway and Yorba Linda Boulevard; and landscaping of the Specific Plan area would be consistent with the Downtown Hardscape Master Plan (as acoustically "soft" surfaces reduces noise impacts further than "hard" surfaces). The Proposed Project is consistent with this design.
<b>Policy 5.2:</b> Consider alternative architectural layouts as a means of meeting noise requirements.	<b>Consistent.</b> Please see the analysis above with regard to the noise analysis associated with the project layout and site plan.
<b>Policy 5.3:</b> Require a combination of noise barriers and landscape berms where architectural design treatments fail to adequately reduce adverse noise levels.	<b>Consistent.</b> Construction noise generated by the Proposed Project would be mitigated to further reduce construction noise impacts. Noise generated on-site or off-site within the Project would fall within the City's noise guidelines and thresholds. It should be noted that the approved Specific Plan would be consistent with the Downtown Hardscape Master Plan and would provide a minimum of a 20-foot landscape buffer along Imperial Highway and Yorba Linda Boulevard (highest generating traffic roadway segments).
<b>Policy 5.4:</b> Require the construction of noise barriers and landscaped berms in conjunction with architectural treatments, when needed to adequately mitigate noise impacts.	<b>Consistent.</b> Noise generated on-site or off-site within the Proposed Project would fall within the City's noise guidelines and thresholds. It should be noted that the approved Specific Plan would be consistent with the Downtown Hardscape Master Plan and would provide a minimum of a 20-foot landscape buffer along Imperial Highway and Yorba Linda Boulevard (highest generating traffic roadway segments). Construction noise generated by the Proposed Project would be mitigated to further reduce construction noise impacts.

**5.5-7 Cumulative Impacts**

This cumulative impact analysis considers development of the Project in combination with ambient growth and other development projects within the vicinity. As noise is a localized phenomenon and decreases in magnitude as distance from the source increases, only projects and ambient growth in the nearby area could combine with the Project to result in cumulatively considerable noise impacts.

**Construction Noise**

Construction of the Project in combination with related projects could result in an increase in construction-related noise and vibration levels in this urbanized area of the City. However, all

of the related projects would be subject to the YLMC, which limits the hours of allowable construction activities. In addition, each of the related projects could be subject to additional project-specific mitigation measures aimed at the reduction of construction noise and vibration levels. Furthermore, as noise is a localized phenomenon and decreases in magnitude as distance from the source increases, it is unlikely that Project-related construction activities would combine with construction activities associated with the related projects to generate a cumulatively considerable noise and vibration impact during construction. As such, cumulative impacts with respect to construction noise and vibration would be less than significant.

### Operational Noise

Cumulative mobile source noise impacts would occur primarily as a result of increased traffic on local roadways due to the Project, ambient growth, and related projects within the study area. Therefore, cumulative traffic-generated noise impacts have been assessed based on the contribution of the Project to the Future With Project (2016 and 2035) volumes on the roadway segments in the project vicinity. As shown below in **Table 5.5-14, Future Roadway Noise Levels**, column [3] minus column [1] would yield an increase in cumulative roadway noise levels with the Project for future year 2016 compared to existing conditions (i.e., existing conditions, plus project, plus ambient growth, plus related projects), and column [5] minus column [1] would yield an increase in cumulative roadway noise levels with the Project for future year 2035 compared to existing conditions (i.e., existing conditions, plus project, plus ambient growth, plus related projects).

As shown in **Table 5.5-14**, cumulative local noise levels for year 2016 would increase by a maximum of maximum of 3.3 dBA CNEL for the roadway segment of School Street south of Lemon Drive. All other roadway segments would not experience cumulative year 2016 noise level increases by more than 1.8 dBA CNEL and these increases would be less than the 3 dBA and 5 dBA CNEL thresholds identified previously. With respect to the cumulative 3.3 dBA CNEL increase for the roadway segment of School Street south of Lemon Drive, the total resulting noise level would be approximately 57.0 dBA CNEL, which would be under the acceptable exterior noise standards identified in the City's General Plan and the 5 dBA CNEL increase threshold would be applied to this condition. As such, the 3.3 dBA CNEL increase for the roadway segment of School Street south of Lemon Drive would not exceed the 5 dBA CNEL threshold of significance, and off-site traffic noise levels for the cumulative year 2016 would be less than significant.

Also shown in **Table 5.5-14**, cumulative local noise levels for year 2035 would increase by a maximum of maximum of 3.8 dBA CNEL for the roadway segment of Main Street from Proposed St. "A" to Imperial Highway, 3.6 dBA CNEL for the roadway segment of School Street south of Lemon Drive, and 3.3 dBA CNEL for the roadway segment of Lakeview

Avenue between Project Driveway 3 & Yorba Linda Blvd. All other roadway segments would not experience cumulative year 2035 noise level increases by more than 2.8 dBA CNEL and these increases would be less than the 3 dBA and 5 dBA CNEL thresholds identified previously. With respect to the cumulative 3.8, 3.6 and 3.3 dBA CNEL increases for the roadway segments identified above, the total resulting noise level would be under the acceptable exterior noise standards identified in the City's General Plan, and the 5 dBA CNEL increase threshold would be applied to this condition. As such, the cumulative 3.8, 3.6 and 3.3 dBA CNEL increases would not exceed the 5 dBA CNEL threshold of significance, and off-site traffic noise levels for the cumulative year 2035 would be less than significant.

#### **5.5-8 Level of Significance Before Mitigation**

Less than significant.

#### **5.5-9 Cumulative Mitigation Measures**

No mitigation measures are required.

**Table 5.5-14 Future Roadway Noise Levels**

Roadway	Roadway Segment	dBA CNEL									
		Existing (2014) [1]	Future Without Project (2016) [2]	Future With Project (2016) [3]	Project Net Increase [3]-[2]	Cumulative Net Increase [3]-[1]	Future Without Project (2035) [4]	Future With Project (2035) [5]	Project Net Increase [5]-[4]	Cumulative Net Increase [5]-[1]	
Lakeview Avenue	North of Lemon Dr.	65.8	66.2	66.6	0.4	0.8	68.1	68.4	0.3	2.6	
	Between Lemon Dr. & Project Driveway 3	66.3	66.6	66.7	0.1	0.4	68.3	68.6	0.3	2.3	
	Between Project Driveway 3 & Yorba Linda Blvd.	66.0	66.3	67.1	0.8	1.1	68.7	69.3	0.6	3.3	
	South of Yorba Linda Blvd.	67.3	67.8	68.0	0.2	0.7	69.6	69.6	0.0	2.3	
School Street	53.7	54.3	57.0	2.7	3.3	55.9	57.3	1.4	3.6		
Main Street	Between Lemon Dr. & Proposed St. "A"	56.1	56.1	56.3	0.2	0.2	56.8	57.0	0.2	0.9	
	Between Proposed St. "A" Project Driveway 1	54.0	54.0	55.8	1.8	1.8	56.8	57.8	1.0	3.8	
	Between Project Driveway 1 & Imperial Hwy.	54.0	54.0	55.8	1.8	1.8	56.8	57.8	1.0	3.8	
Imperial Highway	Northwest of Main St.	73.4	73.6	73.7	0.1	0.3	74.3	74.3	0.0	0.9	
	Between Main St. & Yorba Linda Blvd.	73.4	73.6	73.7	0.1	0.3	74.3	74.3	0.0	0.9	
	South of Yorba Linda Blvd.	76.3	76.5	76.7	0.2	0.4	77.2	77.3	0.1	1.0	
Lemon Drive	West of Main St.	63.2	63.3	64.0	0.7	0.8	65.4	65.9	0.5	2.7	
	Between Main St. & School St.	63.3	63.4	63.9	0.5	0.6	65.7	66.1	0.4	2.8	
	Between School St. & Valencia Ave.	63.5	63.6	64.2	0.6	0.7	64.4	65.0	0.6	1.5	
	Between Valencia Ave. & Lakeview Ave.	63.6	63.7	64.4	0.7	0.8	64.8	65.4	0.6	1.8	
Yorba Linda Blvd.	West of Imperial Hwy.	70.8	71.0	71.2	0.2	0.4	71.7	71.9	0.2	1.1	
	Between Imperial Hwy & Lakeview Ave.	72.1	72.3	72.6	0.3	0.5	73.0	73.2	0.2	1.1	
	East of Lakeview Ave.	72.1	72.3	72.5	0.2	0.4	73.2	73.2	0.0	1.1	

Traffic data: Yorba Linda Commons Traffic Impact Analysis, Urban Crossroads, February 5, 2015.  
Calculations provided in Sub-Appendix B to Appendix 5.5 in this EIR.

## 5.6 Traffic and Circulation

### 5.6-1 Introduction

This section presents an overview of the existing traffic and circulation system in the Proposed Project area. It also discusses the potential impacts to traffic and circulation as a result of the implementation of the Proposed Project. Where impacts are identified, mitigation measures are recommended to reduce such impacts to less than significant levels to the extent possible. This section summarizes the findings of a traffic report prepared for the Proposed Project by Urban Crossroads in February 2015. A complete copy of the Traffic Impact Analysis and the Short Term Construction Traffic Impact Assessment dated May 26, 2015 has been included in **Appendix 5.6** of this Subsequent EIR.

The following provides an overview of the methodology utilized by the traffic engineers to conduct the impacts analysis presented in this section.

#### 1. Definitions

The following definitions are provided for certain terms used throughout this section to clarify their intended meaning:

ADT	Average Daily Traffic. Generally used to measure the total two-directional traffic volumes passing a given point on a roadway.
CMP	Congestion Management Program. A state-mandated program administered by the Los Angeles County Metropolitan Transportation Authority (MTA) that provides a mechanism for coordinating land use and development decisions.
ICU	Intersection Capacity Utilization. A measure of the volume to capacity ratio for an intersection. Typically used to determine the peak hour level of service for a given set of intersection volumes.
LOS	Level of Service. A scale used to evaluate circulation system performance based on intersection ICU values or volume/capacity ratios of arterial and freeway segments.
Peak Hour	The hour during the AM peak period (typically 7:00 a.m. to 9:00 a.m.) or the PM peak period (typically 3:00 p.m. to 6:00 p.m.) in which the greatest number of vehicle

**Acronyms used in this section:**

CA MUTCD	California Manual on Uniform Control Devices
CBSP	Commuter Bikeways Strategic Plan
CEQA	California Environmental Quality Act
E+P	Existing Plus Project
EIR	Environmental Impact Report
FHWA	Federal Highway Administration
HCM	Highway Capacity Manual
ITE	Institute of Transportation Engineers
MPAH	Orange County Master Plan of Arterial Highways
MTA	Los Angeles Metropolitan Transportation Authority
OCTA	Orange County Transportation Authority
OCTAM	Orange County Transportation Analysis Model
PCE	passenger car equivalents
SCAG	Southern California Association of Governments
TAZ	traffic analysis zone

trips are generated by a given land use or are traveling on a given roadway.

Trip End	A trip generation measure which represents the total trips entering and leaving a location; each trip has two trip ends.
V/C	Volume to Capacity Ratio. This is typically used to describe the percentage of capacity utilized by existing or projected traffic on a segment of an arterial or intersection.
VPH	Vehicles per Hour. Used for roadway volumes (counts or forecasts) and trip generation estimates. Measures the number of vehicles in a 1-hour period, typically the AM or PM peak hour.

## 2. Methodology

In most traffic studies, performance criteria are based on two primary measures. The first is “capacity,” which establishes the vehicle carrying ability of a roadway, and the second is “volume.” The volume measure is either a traffic count (in the case of existing volumes) or a forecast for a future point in time. The ratio between the volume and the capacity gives a V/C ratio and based on that V/C ratio, a corresponding LOS is defined.

### Level of Service Descriptions

The operations of roadway facilities are described with the term LOS. LOS is a qualitative description of traffic flow based on such factors as speed, travel time, delay, and freedom to maneuver. Six levels are defined from LOS A, with free-flow conditions, to LOS F, with the worst operating conditions resulting in break-down flow and stop and go conditions. LOS E represents “at or near capacity” operations, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow. LOS D is the limit of acceptable operations in the City of Yorba Linda. Intersections that operate at a level of service below LOS D are deemed to be operating at insufficient levels.

### ICU Analysis

The City of Yorba Linda requires study area intersections to be evaluated through ICU analysis, which compares forecasts of peak hour traffic volumes to intersection capacity. A minimum clearance interval of 0.05 in association with lane capacities of 1,700 vehicles per hour of green time for through lanes and turn lanes was assumed for the ICU calculations. The cities of Brea, Fullerton, Placentia, and Anaheim ICU analysis is consistent with the City of Yorba Linda analysis as are the thresholds; therefore, the same assumptions were applied for intersections in all jurisdictions.

ICU LOS thresholds are provided in the table below.

**Table 5.6-1 ICU LOS Thresholds**

Level of Service (LOS)	Intersection Capacity Utilization (ICU)
A	< 0.60
B	0.61-0.70
C	0.71-0.80
D	0.81-0.90
E	0.91-1.00
F	> 1.00

Source: City of Yorba Linda, City of Fullerton, City of Brea, City of Placentia, and City of Anaheim

A project is deemed to have a significant impact if the project results in:

1. Deterioration of the LOS to an unacceptable LOS or an increase in the ICU value of 0.01 if the intersection currently operates at LOS E; or
2. LOS F without project conditions.

Peak hour ICU and LOS analyses were performed for 33 study intersections – 22 intersections in the City of Yorba Linda, 4 in the City of Brea, 2 in the City of Placentia, and 3 in the City of Anaheim.

### Caltrans Intersection Analysis

Per the “Caltrans Guide for the Preparation of Traffic Impact Studies,” the traffic modeling and signal timing optimization software package Synchro (Version 8, Build 806) has also been utilized to analyze signalized intersections under Caltrans’ jurisdiction, which include interchange to arterial ramps (i.e., SR-57 Freeway ramps at Imperial Highway (SR-90) and all intersections along Imperial Highway (SR-90)).

**Table 5.6-2** presents the signalized intersection delay and LOS standards, and **Table 5.6-3** presents the unsignalized intersection delay and LOS standards based on the Highway Capacity Manual (HCM) and used for the analysis of Caltrans-operated facilities along Imperial Highway or unsignalized intersections throughout the study area. Intersections, major regional arterials, and Caltrans facilities operating at LOS E identified within the CMP are considered acceptable under CMP guidelines.

**Table 5.6-2 HCM Signalized Intersection LOS Thresholds**

Level of Service (LOS)	Intersection Delay (seconds)
A	0 to 10.00
B	10.01 to 20.00
C	20.01 to 35.00
D	35.01 to 55.00
E	55.01 to 80.00
F	80.01 and up

Source: Highway Capacity Manual (HCM) 2000

**Table 5.6-3 HCM Unsignalized Intersection LOS Thresholds**

Level of Service (LOS)	Intersection Delay (seconds)
A	0 to 10.00
B	10.01 to 15.00
C	15.01 to 25.00
D	25.01 to 35.00
E	35.01 to 50.00
F	> 50.00

Source: Highway Capacity Manual (HCM) 2000

### Traffic Signal Warrant Analysis

The term “signal warrants” refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or ascertain the need for installation of a traffic signal at an otherwise unsignalized intersection. The traffic impact analysis uses the signal warrant criteria presented in the latest edition of the Federal Highway Administration’s (FHWA) Manual on Uniform Traffic Control Devices for all study area intersections.

The signal warrant criteria for existing conditions are based upon several factors, including volume of vehicular and pedestrian traffic, frequency of accidents, and location of school areas. The FHWA’s Manual on Uniform Traffic Control Devices indicates that the installation of a traffic signal should be considered if one or more of the signal warrants are met.

Specifically, the traffic impact analysis utilizes the Peak Hour Volume-based Warrant 3 as the appropriate representative traffic signal warrant analysis for existing traffic conditions. Since Warrant 3 provides specialized warrant criteria for intersections with rural characteristics (e.g., located in communities with populations of less than 10,000 persons or with adjacent major streets operating above 40 miles per hour), study intersections using this specialized criteria have been clearly identified. The speed limit was the basis for determining whether Urban or Rural warrants were used for a given intersection.

Future unsignalized intersections have been assessed regarding the need for new traffic signals based on future ADT volumes, using the planning level ADT-based signal warrant analysis worksheets. It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this threshold condition does not require that a traffic control signal be installed at a particular

location, but rather, that other traffic factors and conditions be evaluated to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with level of service. An intersection may satisfy a signal warrant condition and operate at or above LOS C or operate below LOS C and not meet a signal warrant. The traffic signal warrant analysis is provided in (see **Sub-Appendix 5.2** of the traffic study in **Appendix 5.6**).

## Traffic Scenarios

For the purposes of this traffic study, potential impacts to traffic and circulation have been assessed for each of the following conditions:

- Existing (2014) (1 scenario)
- Existing plus Project (1 scenario)
- Opening Year Cumulative (2016), Without and With Project (2 scenarios)
- Horizon Year (2035), Without and With Project (2 scenarios)

Each of these scenarios is presented in further detail below.

### 1. Existing (2014) Conditions

Information for Existing (2014) conditions is disclosed to represent the baseline traffic conditions as they existed at the time the traffic impact analysis was prepared. Pursuant to discussions with City staff, 2014 traffic forecasts will be derived by adding growth to counts conducted in 2013. An annual growth of 1.0% will be applied to the 2013 counts to derive existing 2014 forecasts. As such, existing 2014 forecasts will be based on historical growth observed for the study area intersections.

### 2. Existing Plus Project Conditions

The Existing Plus Project (E+P) analysis determines circulation system deficiencies that would occur on the existing roadway system in the scenario of the Project being placed upon existing conditions. The E+P analysis is intended to identify the Project-specific traffic impacts associated solely with the development of the Proposed Project based on a comparison of the E+P traffic conditions to Existing (2014) conditions.

### 3. Opening Year Cumulative (2016) Conditions

The Opening Year Cumulative (2016) conditions analysis determines the potential near-term cumulative circulation system deficiencies. The Opening Year Cumulative conditions analysis has been provided to determine if planned and funded improvements can accommodate the *near-term* cumulative traffic at the target level of service (LOS) identified by the lead agency. Other improvements needed beyond the “funded” improvements are identified as such.

To account for background traffic growth, traffic associated with other known cumulative development projects in conjunction with an ambient growth from existing (2014) conditions of 2.01% (1.0% per year over 2 years, compounded annually) is included for Opening Year Cumulative traffic conditions. This list was compiled from information provided by the cities of Yorba Linda, Anaheim, and Brea, and the County of Orange, and is consistent with recent studies in the study area.

#### 4. Horizon Year (2035) Conditions

Traffic projections for Horizon Year (2035) with Project conditions were derived from the Orange County Transportation Analysis Model (OCTAM) regional traffic model, maintained by the Orange County Transportation Authority (OCTA), using accepted procedures for model forecast refinement and smoothing. For the purpose of this analysis, Horizon Year (2035) traffic forecasts were either obtained from the Yorba Linda Town Center Specific Plan Traffic Impact Analysis or the City of Yorba Linda Housing Element Traffic Impact Analysis.<sup>85,86</sup> The variance between the currently Proposed Project and the previously approved Project was then manually added to the Without Project scenario to determine traffic forecasts for With Project traffic conditions.

The Horizon Year (2035) conditions analysis will be utilized to determine if planned and funded improvements can accommodate the long-range cumulative traffic at the target LOS identified by the City of Yorba Linda. Other improvements needed beyond the “funded” improvements are identified as such.

### Model Background

The traffic analysis was performed by application of the Orange County Transportation Analysis Model (OCTAM) version 3.3 maintained by OCTA to develop future traffic forecast volumes in the vicinity of the Proposed Project and the surrounding area. OCTAM is the traffic forecasting modeling tool used by the City of Yorba Linda. It is based on, and is consistent with, the Southern California Association of Governments’ (SCAG) regional transportation model, which incorporates adopted regional growth projections. To identify trips generated for use in the OCTAM, an employment conversion rate is utilized for retail and office land uses. Based on the citywide land use data and the regional socio-economic growth projections, future trip activity is estimated and assigned to the roadway circulation system.

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85 Yorba Linda Town Center Specific Plan Traffic Impact Analysis dated November 15, 2010; prepared by Urban Crossroads, Inc.

86 Yorba Linda Housing Element Traffic Impact Analysis dated January 13, 2011; prepared by Urban Crossroads, Inc.

## Internal Capture

Pass-by trips are defined as intermediate stops on the way from an origin to a primary trip destination without a route diversion. Pass-by trips are attracted from traffic passing the site on an adjacent street or roadway that offers direct access to the generator. These types of trips are many times associated with retail uses such as restaurants, supermarkets, and other retail shops. As the Project is proposed to include these types of land uses, pass-by percentages have been applied only to the supermarket and food uses in the AM peak hour and the supermarket, mixed retail, food, and restaurant land uses for the PM peak hour and daily. Pass-by reductions are consistent with the ITE Trip Generation Handbook, 3<sup>rd</sup> Edition.<sup>87</sup>

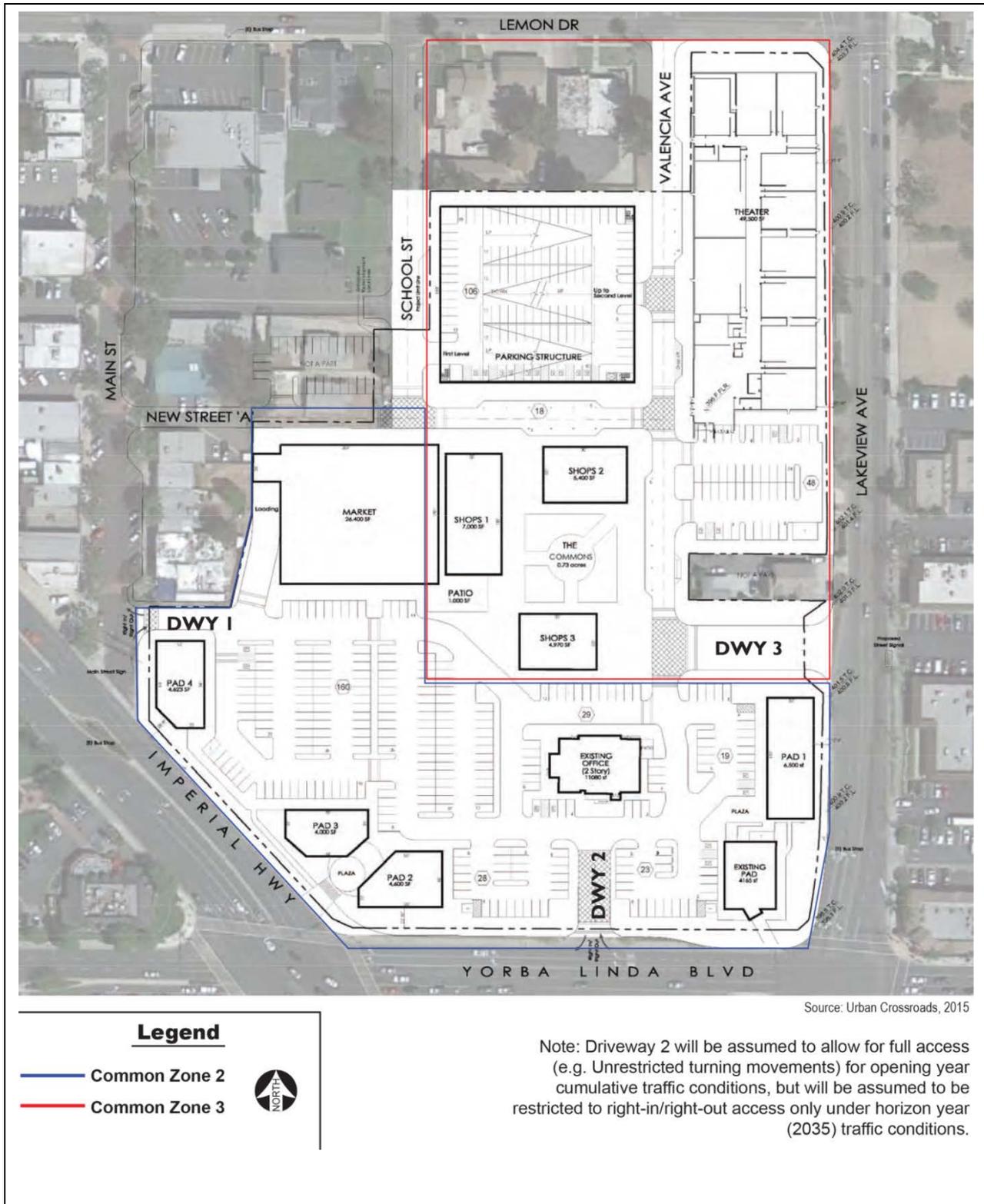
Internal capture is a percentage reduction that can be applied to the trip generation estimates for individual land uses to account for trips internal to the site. In other words, trips may be made between individual retail uses on-site and can be made either by walking or using internal roadways without using external streets. It has been assumed that approximately 10% of theater-related trips would remain within the Project boundary and only for the PM peak hour and daily. An internal capture reduction of 10% was applied to recognize the interactions that would occur between the theater and various complimentary land uses. For example, patrons of the theater may also visit the food/restaurant uses without leaving the site and are therefore considered as vehicle trips that are internal to the site.

As shown on Table 6.1 of the ITE Trip Generation Handbook, the internal capture percentage between cinema-to-retail land uses is approximately 21% during the weekday PM peak hour. As such, a 10% internal capture reduction has been utilized in an effort to estimate a conservative trip generation for the Proposed Project. Per ITE guidance, internal capture reduction has only been applied to the theater only, but not on the shopping center use, as the trip generation rates for the shopping center use account for internal capture between uses found within a typical shopping center.

The project site plan used to determine traffic impacts is found on **Figure 5.6-1, Project Site Plan**.

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<sup>87</sup> Trip Generation Handbook, 2014; Institute of Transportation Engineers



**Figure 5.6-1**  
**Project Site Plan**

## 5.6-2 Existing Conditions

The existing conditions analysis establishes the framework for the future forecasts for the Proposed Project. The analysis is based on existing intersection and roadway traffic counts, collected on a typical weekday in 2014, and are located in **Sub-Appendix 3.1** in **Appendix 5.6**. The existing conditions analysis reflects these count volumes as well as existing lane configurations for all analysis locations in the study area. Existing roadway conditions and the proposed future improvements for study area roadways are described below.

### 1. Local Roadways – City of Yorba Linda

The Project Site is located within the City of Yorba Linda. However, the study area includes intersections within the cities of Brea, Fullerton, Placentia, and Anaheim, and locations that fall within the jurisdiction of Caltrans.

The roadway classifications and planned (ultimate) roadway cross-sections of the major roadways within the study area, as identified on the City of Yorba Linda General Plan Circulation Element, are described subsequently and are consistent with the Orange County Master Plan of Arterial Highways (MPAH).

Modified Major Arterials contain up to 6 lanes within 100- to 120-foot right-of-way, with a 14-foot raised median, and primarily serve major north/south and east/west travel through the City. These roadways are designed to accommodate traffic volumes for a Major Arterial Highway in an area that is currently developed and where full right-of-way is not feasible due to existing structures or topography. The following study area roadways within the City of Yorba Linda are classified as Modified Major Arterials.

- Imperial Highway (SR-90), north of Yorba Linda Boulevard
- Yorba Linda Boulevard (west of Fairmont Boulevard)

Primary Arterial Highways contain up to 4 lanes within 100-foot right-of-way, and a 14-foot raised median. These roadways have the mobility with access to collectors, some local streets, and major traffic generators. The following study area roadways within the City of Yorba Linda are classified as Primary Arterial Highways.

- Lakeview Avenue, south of Yorba Linda Boulevard
- Yorba Linda Boulevard, east of Fairmont Boulevard
- Fairmont Boulevard
- Rose Drive
- Lakeview Avenue, north of Bastanchury Road (Non-MPAH)

Modified primary arterial highways contain up to 4 lanes within 80-foot right-of-way, and a 14-foot raised median. These roadways are designed to accommodate traffic volumes for a Primary Arterial Highway in an area that is currently developed and where full right-of-way is not feasible

due to existing structures or topography. The following study area roadways within the City of Yorba Linda are classified as Modified Primary Arterial Highways.

- Bastanchury Road, west of Lakeview Avenue
- Bastanchury Road, east of Lakeview Avenue (Proposed)

Secondary Arterial Highways are 4 lane undivided roadways within 80-foot right-of-way. These roadways serve as collectors, distributing traffic between local streets and Major and Primary Arterials. They also provide access to adjacent land uses, thus providing mobility and access. The following study area roadways within the City of Yorba Linda are classified as Modified Primary Arterial highways.

- Lakeview Avenue, between Bastanchury Road and Yorba Linda Boulevard
- Kellogg Drive, south of Yorba Linda Boulevard
- Richfield Avenue, south of Yorba Linda Boulevard
- Buena Vista Avenue
- Lakeview Avenue, north of Bastanchury Road (Proposed)

Local streets are 2-lane undivided roadways within 80-foot right-of-way. The following study area roadways within the City of Yorba Linda are classified as Modified Primary Arterial Highways.

- Prospect Avenue
- Plumosa Drive
- Oriente Drive
- Bastanchury Road, east of Lakeview Avenue (Existing Classification)

## 2. Existing Traffic Volumes and Levels of Service

The intersection LOS analysis is based on traffic volumes observed during the peak hour conditions using traffic count data collected in 2014. The following peak hours were selected for analysis:

- Weekday AM Peak Hour (peak hour between 7:00 a.m. and 9:00 a.m.)
- Weekday PM Peak Hour (peak hour between 4:00 p.m. and 6:00 p.m.)

Traffic counts conducted in 2013 were utilized for the purposes of the Traffic Impact Analysis. The traffic counts were increased by 1.0% to reflect 2014 traffic conditions. New traffic counts were collected if data from 2013 was not available. Lastly, counts were conducted during the Saturday mid-day peak period to compare the Saturday mid-day peak hour to the PM peak hour and determine if additional analysis is necessary for Saturday. In comparing the weekday PM peak hour and Saturday mid-day peak hour count data at select intersections along Imperial Highway (SR-90) and Yorba Linda Boulevard, the Saturday mid-day peak hour is approximately 15% to 40% less than the weekday PM peak hour counts at the same locations. Significant volume reductions were observed on Saturday for the major through movements on Imperial Highway (SR-90) and Yorba Linda Boulevard. As such, it was determined that additional evaluation of the Saturday mid-day peak hour was not necessary. Intersection operations analysis is provided in **Table 5.6-4** below.

**Table 5.6-4 Intersection Analysis for Existing (2014) Conditions**

#	Intersection	Traffic Control <sup>2</sup>	Delay (seconds) ICU (v/c) <sup>1</sup>		Level of Service		Acceptable LOS
			AM	PM	AM	PM	
1	SR-57 SB Ramps / Imperial Hwy. (SR-90)	TS	14.7	19.6	B	B	E
2	SR-57 NB Ramps / Imperial Hwy. (SR-90)	TS	14.5	15.0	B	B	E
3	Associated Rd. / Imperial Hwy. (SR-90)	TS	26.1	30.1	C	C	D
4	Placentia Av. / Imperial Hwy. (SR-90)	TS	23.0	28.8	C	C	D
5	Kraemer Bl. / Imperial Hwy. (SR-90)	TS	31.6	34.3	C	C	D
6	Valencia Av. / Imperial Hwy. (SR-90)	TS	27.8	27.5	C	C	E
7	Rose Dr. / Imperial Hwy (SR-90)	TS	35.1	31.2	D	C	E
8	Rose Dr. / Yorba Linda Bl.	TS	0.60	0.68	A	B	D
9	Prospect Av. / Imperial Hwy. (SR-90)	TS	21.9	17.6	C	B	D
10	Imperial Hwy. (SR-90) / Bastanchury Rd.	TS	33.3	25.8	C	C	D
11	Richfield Rd. / Yorba Linda Bl.	TS	0.43	0.41	A	A	D
12	Imperial Hwy. (SR-90) / Lemon Dr.	TS	6.9	7.5	A	A	D
13	Olinda St. / Imperial Hwy. (SR-90)	TS	7.9	11.1	A	B	D
14	Main St. / Imperial Hwy. (SR-90)	CSS	<b>35.6</b>	<b>28.2</b>	E	D	D
15	Imperial Hwy. (SR-90) / Yorba Linda Bl.	TS	39.8	42.7	D	D	D
16	Plumosa Dr. / Lemon Dr.	AWS	8.3	8.6	A	A	D
17	Main St. / Lemon Dr.	AWS	7.8	8.7	A	A	D
18	Main St. / Street "A"	CSS	9.6	9.9	A	A	D
19	Main St. / Driveway 1			future intersection			D
20	School St. / Lemon Dr.			future intersection			D
21	Valencia Av. / Lemon Dr.	CSS	9.4	9.6	A	A	D
22	Driveway 2 / Yorba Linda Bl.4	CSS	20.8	31.8	C	D	D
23	Lakeview Av. / Bastanchury Rd.	TS	0.41	0.49	A	A	D
24	Lakeview Av. / Oriente Dr.	AWS	20.4	13.1	C	B	D
25	Lakeview Av. / Lemon Dr.	AWS	13.7	14.6	B	B	D
26	Lakeview Av. / Driveway 3	CSS	11.5	14.6	B	B	D
27	Lakeview Av. / Yorba Linda Bl.	TS	0.55	0.56	A	A	D
28	Lakeview Av. / Buena Vista Av.	AWS	<b>38.9</b>	<b>27.5</b>	E	D	D
29	Kellogg Dr. / Yorba Linda Bl.	TS	0.41	0.55	A	A	D
30	Fairmont Bl. / Yorba Linda Bl.	TS	0.59	0.49	A	A	D
31	Imperial Hwy. (SR-90) / Orangethorpe Av. Ramp	TS	5.7	6.5	A	A	E
32	Imperial Hwy. (SR-90) Ramp / Orangethorpe Av.	TS	29.9	24.4	C	C	E
33	Imperial Hwy. (SR-90) / E. La Palma Av.	TS	<b>75.4</b>	<b>58.3</b>	E	E	D

Note: **Bold** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

- 1 Per the 2010 Highway Capacity Manual (HCM), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. HCM delay reported in seconds and ICU reported as a volume-to-capacity ratio.
- 2 TS = Traffic Signal; CSS = Cross-Street Stop; AWS = All-Way Stop
- 3 Per the HCM 2010 methodology, the maximum number of through lanes that can be evaluated at a cross-street stop controlled intersection is three lanes.

The intersection operations analysis results summarized in in **Table 5.6-4 above**, indicate that the following existing study area intersections are currently operating at an unacceptable LOS during the peak hours:

- 14 Main Street / Imperial Highway (SR-90) – LOS E AM peak hour only
- 28 Lakeview Avenue / Buena Vista Avenue – LOS E AM peak hour only
- 33 Imperial Highway (SR-90) / La Palma Avenue – LOS E AM and PM peak hours

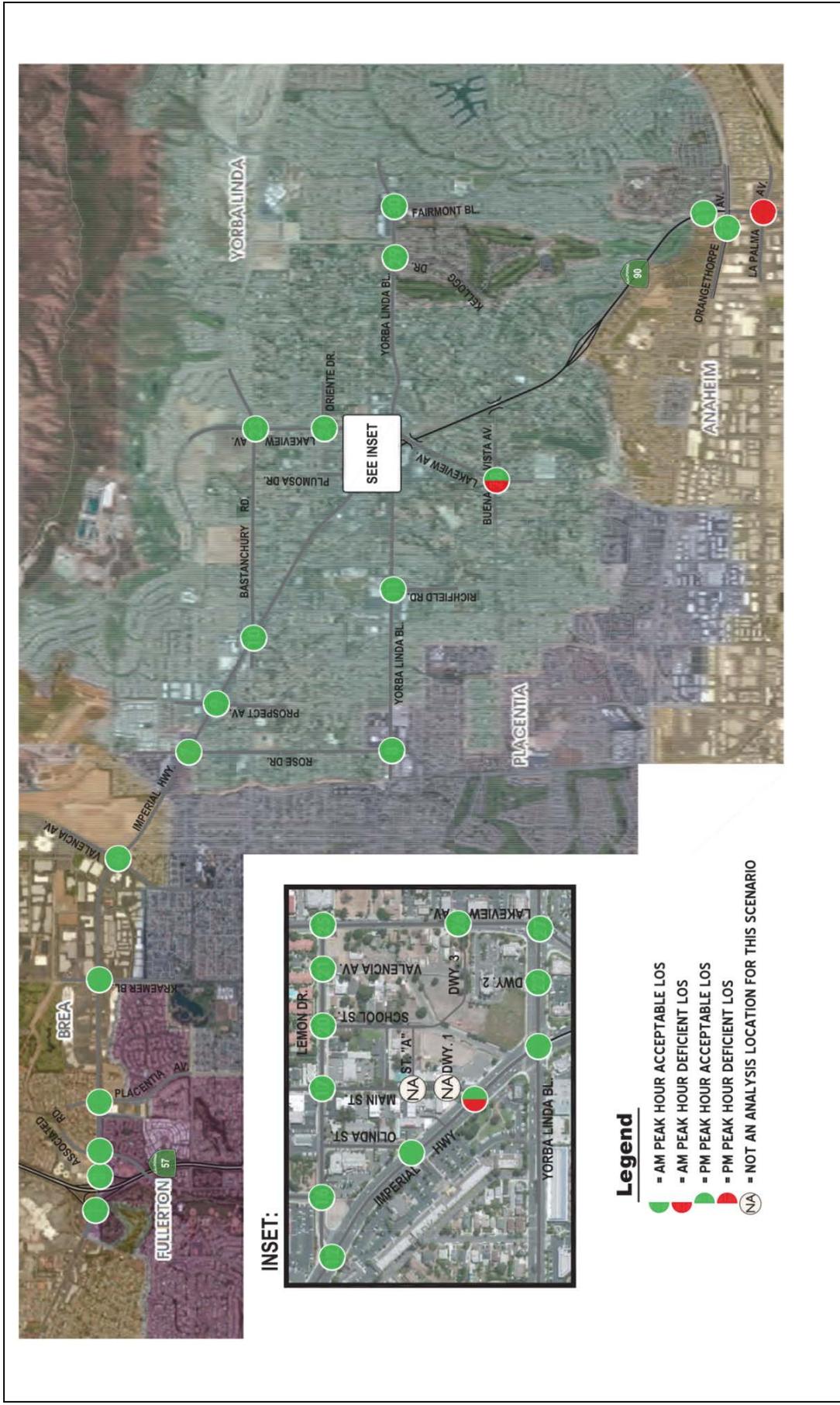
Consistent with **Table 5.6-4, Intersection Analysis for Existing (2014) Conditions** above, a summary of the peak hour intersection LOS for Existing Conditions are shown on **Figure 5.6-2**.

The intersection of Main Street and Imperial Highway (SR-90) currently operates at LOS E due to the high delays experienced by eastbound left turning vehicles from Imperial Highway (SR-90) onto Main Street. These vehicles can avoid these delays by utilizing the upstream signalized intersection at Olinda Street. The Lakeview Avenue/Buena Vista Avenue intersection presently operates at a Level of Service E during the AM peak hours. Pursuant to discussions with City of Anaheim staff, the mitigation measures for the intersection of Imperial Highway and La Palma Avenue are not feasible due to the intersection's proximity to the adjacent SR-91 Freeway and Imperial Highway interchange, which is operated and maintained by Caltrans. No additional improvements are planned at the intersection of Imperial Highway at La Palma Avenue, and the intersection is considered to be built to its ultimate General Plan designation. As such, mitigation has not been recommended at this intersection for the purposes of this analysis. The intersection operations analysis worksheets are included in **Sub-Appendix 3.2 of Appendix 5.6**.

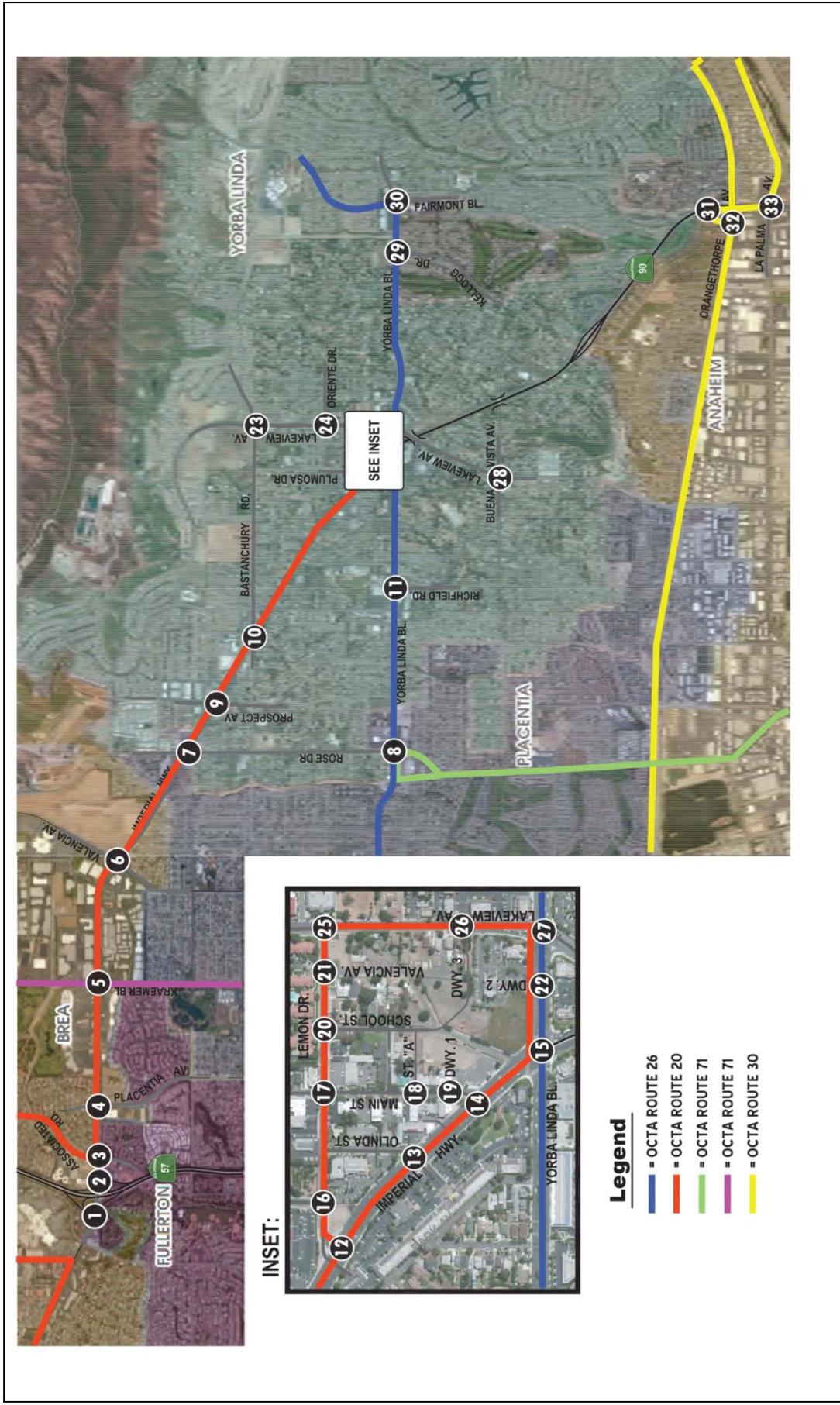
### 3. Existing Transit Service

The study area is currently served by OCTA, a public transit agency serving the Orange County region near the City of Yorba Linda, with bus service along Imperial Highway, Associated Road, Kraemer Boulevard, Yorba Linda Boulevard, Rose Drive, Lemon Drive, Lakeview Avenue, Orangethorpe Avenue, and Fairmont Boulevard through various routes. Existing transit service is depicted in **Figure 5.6-3**. Based on a review of the existing transit routes within the vicinity of the Proposed Project, the existing OCTA Routes 20 and 26 could feasibly serve the Project. Transit service is reviewed and updated by OCTA periodically to address ridership, budget, and community demand. Changes in land use can affect these periodic adjustments, which may lead to enhanced or reduced service where appropriate.

Route 20 serves the Specific Plan from the west via Imperial Highway. Bus service enters the project area via Lemon Drive and returns to La Habra Marketplace via Imperial Highway. Route 20 bus services runs Monday through Friday, from 6:28 a.m. to 8:05 p.m. eastbound and from 5:45 a.m. to 7:33 p.m. westbound, in intervals of approximately 60 minutes.



**Figure 5.6-2**  
**Peak Hour Intersection LOS for Existing (2014) Conditions**



**Figure 5.6-3**  
Existing Transit Routes

Route 26 serves the project area via several stops along Yorba Linda Boulevard near Lakeview Avenue and Imperial Highway. The Route 26 bus service runs Monday through Friday, from 5:49 a.m. to 10:44 p.m. eastbound and from 5:11 a.m. to 10:06 p.m. westbound, in intervals of approximately 60 minutes. The bus also services on the weekends and holidays from 8:58 a.m. to 7:16 p.m. eastbound and from 7:45 a.m. to 5:53 p.m. westbound, in intervals of approximately 60 minutes.

#### 4. Bicycle and Pedestrian Facilities

**Figure 5.6-4** illustrates the City of Yorba Linda Trails Map. The closest trail to the project site (approximately 0.25 mile west) is the multi-purpose El Cajon Trail trending southeast to northwest, extending from the junction at the Fullerton Trail in the north, to the Santa Ana River Trail in the south. The El Cajon Trail includes a combination of bicycling, riding, and hiking.

Currently there are no existing bike facilities within the project area. Class I bike paths include a 10-foot parkway, which includes a 5-foot sidewalk, a 10-foot bike path, and a 2-foot parkway with lodge-pole fence. A Class I bike path requires 12 feet of clear and unobstructed area. Class II bike lanes are currently under construction for Lakeview Avenue in the vicinity of the project area.

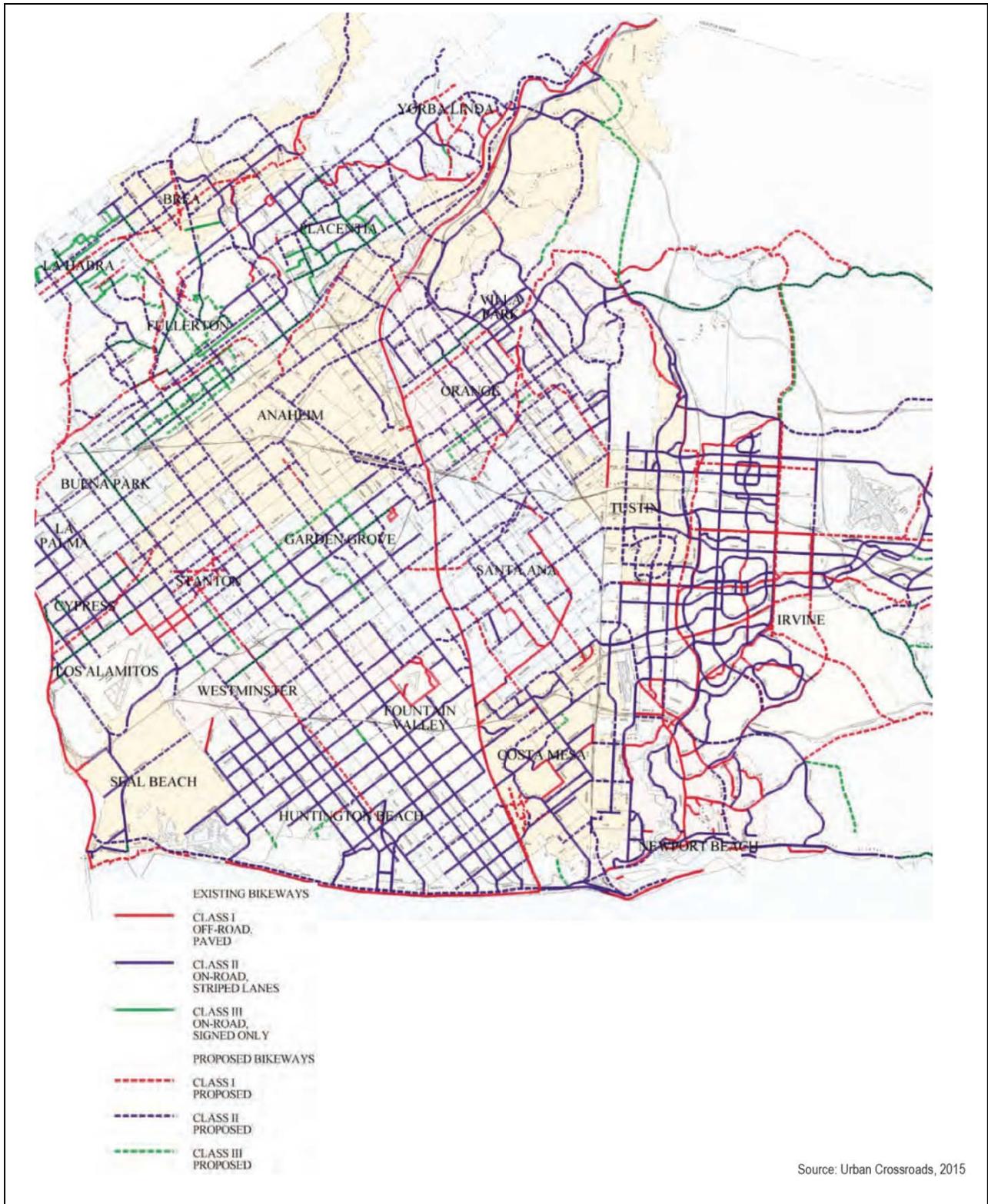
The OCTA Strategic Plan Bikeways, which includes proposed Class II bike lanes along Lakeview Avenue and Yorba Linda Boulevard near the vicinity of the site are shown on **Figure 5.6-5**.

**Figure 5.6-6, Existing Pedestrian Facilities**, indicates the pedestrian walkways and identifies existing sidewalks and crosswalks. Crosswalks are currently provided at the following intersection locations near the vicinity of the project:

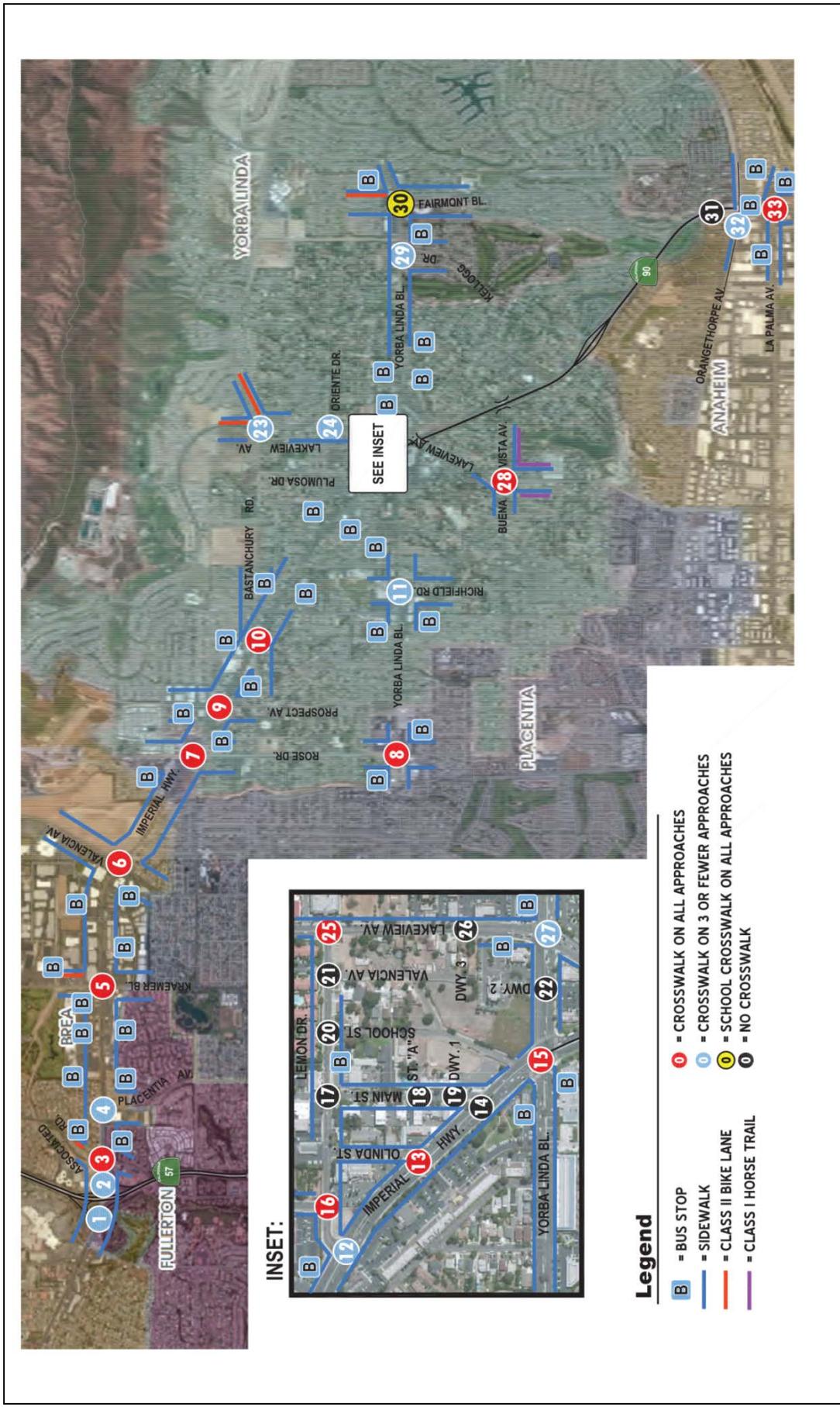
- Imperial Highway/Lemon Drive (east and south legs only)
- Imperial Highway/Yorba Linda Boulevard (all legs)
- Plumosa Drive/Lemon Drive (north, east and west legs only)
- Olinda Street/Imperial Highway (all legs)
- Lakeview Avenue/Lemon Drive (north, south and west legs only)
- Lakeview Avenue/Yorba Linda Boulevard (north, east and south legs only)

Existing pedestrian sidewalks are provided on both sides of Imperial Highway, Olinda Street, and Main Street within the Specific Plan area. School Street does not currently contain pedestrian sidewalks on either side of the street. Arroyo Street contains limited sidewalk areas on the east side near Imperial Highway. Lemon Drive contains sidewalks on the north side of the street between Main Street and Lakeview Avenue and between Imperial Highway and Plumosa Drive. There is an approximate 250-foot gap on the north side of Lemon Street east of Plumosa Drive. Sidewalk exists on the south side of Lemon Drive from Imperial Highway to Lakeview Avenue, except for an approximate 440-foot gap west of Lakeview Avenue. Lakeview Avenue contains sidewalk on the east side of the street from Lemon Drive to Yorba Linda Boulevard. The west side of Lakeview Avenue contains approximately 260-feet of sidewalk north of Yorba Linda Boulevard, terminating 700 feet south of Lemon Drive.





**Figure 5.6-5**  
**Orange County Transportation Authority Strategic Plan Bikeways**



**Figure 5.6-6**  
Existing Pedestrian Facilities

## 5. Existing Parking Supply

The parking analysis previously prepared for the Yorba Linda Town Center Specific Plan has been reviewed, and the Proposed Project's parking has been evaluated against the Specific Plan requirements. The parking ratio identified and adopted as part of the Yorba Linda Town Center Specific Plan is 5.0 spaces per 1,000 square feet of shopping center use. The current Project provides 647 parking spaces, which are accommodated through a 328-space, 3-level parking structure and 319 surface-level parking spaces.

If the Project were to develop with 117,158 square feet of shopping center use and 11,080 square feet of general office use (for a total of 128,238 square feet), it is anticipated that the Project would meet the parking requirements specified in the Specific Plan. A total of 625 parking spaces would be required, which could be accommodated by the proposed 647 parking spaces with a surplus of 22 spaces.

If the Project were to develop conservatively with the higher contemplated square footage of 151,738 square feet, then it is anticipated that the Project would not meet the parking requirements specified in the Specific Plan. Specifically, if the Project were to develop with 140,658 square feet of shopping center use and 11,080 square feet of general office use (for a total of 151,738 square feet), then the Project would require approximately 742 parking spaces.

As such, the current site plan would require an additional 95 parking spaces to accommodate the additional demand. The development of 151,738 square feet with 647 parking spaces assumes a parking ratio of 4.26 spaces per 1,000 square feet, which is less than the 5.0 spaces per 1,000 square feet recommended by the Specific Plan.

### 5.6-3 Regulatory Setting

#### 1. Congestion Management Program

The CMP was enacted by the California Legislature in 1989 to improve traffic congestion in urban areas. The program became effective with the passage of Proposition 111 in 1990, which also increased the state gas tax. Funds generated by Proposition 111 are available to cities and counties for regional road improvements, provided these agencies are in compliance with CMP requirements. The intent of the legislation was to link transportation, land use, and air quality decisions by addressing the impact of local growth on the regional transportation system. State statute requires that a CMP be developed, adopted, and updated biennially for every county that includes an urbanized area, which shall include every city and county government within that county. Therefore, the County of Orange and the City of Yorba Linda must comply with CMP requirements in developing a circulation plan for the City of Yorba Linda.

Under this legislation, regional agencies are designated within each county to prepare and administer the CMP for agencies within that county. Each local planning agency included in the CMP has the following responsibilities:

- Assisting in monitoring the roadways designated within the CMP system
- Adopting and implementing a trip reduction and travel demand ordinance
- Analyzing the impacts of local land use decisions on the regional transportation system
- Preparing annual deficiency plans for portions of the CMP system where level-of-service standards are not maintained

OCTA is the CMP agency for Orange County. OCTA has the responsibility to review compliance with the CMP by agencies under its jurisdiction. For any agency out of compliance, after receiving notice and after a correction period, a portion of state gas tax funds may be withheld if compliance is not achieved. In addition, compliance with the CMP is necessary to preserve eligibility for state and federal funding of transportation projects.

OCTA adopted the County's first CMP in 1997, and completed its most recent update in 2009. The statute requires that all state highways and principal arterials be included within the CMP roadway system.

Intersections identified within the Orange County CMP are allowed to operate at LOS E. The traffic study area contains six CMP intersections:

1. State Route 57 (SR-57) southbound ramps at Imperial Highway (Brea)
2. SR-57 northbound ramps at Imperial Highway (Fullerton)
3. Valencia Avenue at Imperial Highway (Brea)
4. Rose Drive at Imperial Highway (Placentia)
5. Imperial Highway (SR-90)/Orangethorpe Avenue Ramp
6. Imperial Highway (SR-90) Ramp/Orangethorpe Avenue

The 2009 CMP noted that there are no CMP intersections within the City of Yorba Linda. Various strategies are available to local jurisdictions to mitigate CMP traffic impacts, including constructing new roadway improvements, managing traffic flow through signal improvements and trip reduction measures, and land use strategies such as locating higher density uses in proximity to public transit.

## **2. OCTA Commuter Bikeways Strategic Plan**

OCTA adopted the 2009 Commuter Bikeways Strategic Plan (CBSP) on May 22, 2009. The plan was originally written in 1995 and is intended to create a comprehensive blueprint of the existing bikeways in the county, as well as propose new facilities to complete a network of bikeways.

The CBSP is a regional planning document that identifies existing and proposed bikeways in Orange County. Through the cooperation of the cities and the County, an inventory was taken of

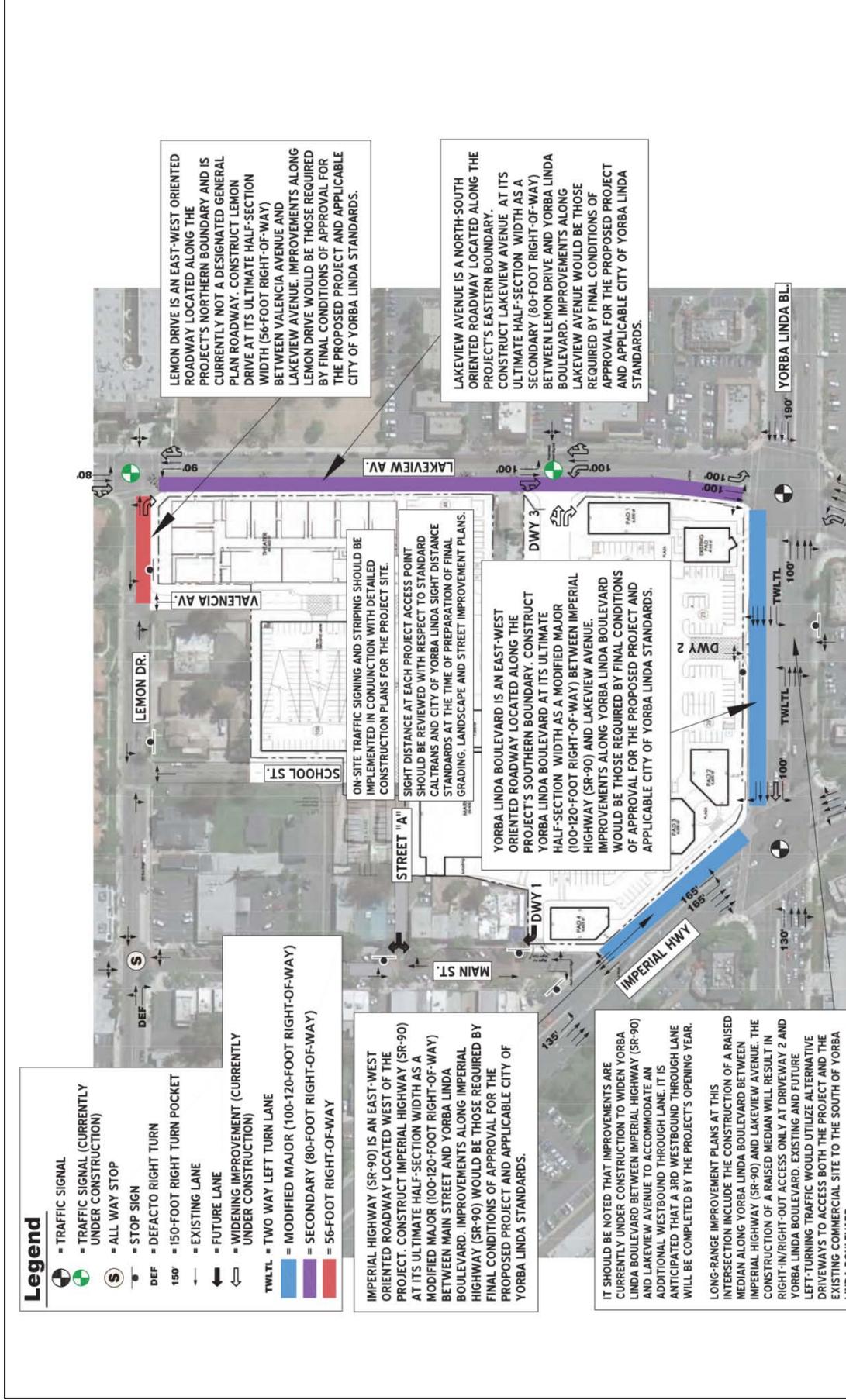
existing bikeways, and priorities for new bikeways were identified. Prioritization of the proposed bikeways, as identified in the plan, was based on several factors, including input from local jurisdictions and the public, as well as connectivity to transit and regional destinations.

In addition to analysis of existing and proposed bikeways, the CBSP also contains information regarding several aspects of bicycle commuting. The CBSP provides information on bicycle amenities, such as bike lockers, parking, signage, and trail markings. It also includes discussion of safety and education programs, innovative roadway markings, bikeway fundamentals, and funding sources. OCTA encourages all cities and the County of Orange to apply for Bicycle Transportation Account funds. The Bicycle Transportation Account is administered by Caltrans. The CBSP complies with the most stringent requirements for bicycle funding programs. OCTA supports bicycle transportation as a viable commute alternative as well as an enjoyable recreational activity.

### 3. Proposed Project Improvements

The Project Site plan proposes access on Imperial Highway (SR-90) (via Main Street), Yorba Linda Boulevard (via Driveway 2), Lemon Drive (via Main Street, School Street, and Valencia Avenue), and Lakeview Avenue (via Driveway 3). All Project access points are assumed to allow full-access turning movements, with the exception of Main Street at Driveway 1 (right-in/right-out access only) and Driveway 2. Driveway 2 currently allows for full turning movements (e.g., no turn restrictions). It is proposed that Driveway 2 would continue to allow for full turning movements under Opening Year Cumulative traffic conditions and then restricted to right-in/right-out access only under Horizon Year traffic conditions when Yorba Linda Boulevard is improved to its ultimate roadway classification. Roadway improvements necessary to provide site access and on-site circulation are assumed to be constructed in conjunction with site development and are described below. These improvements are required to be in place prior to occupancy.

The recommended site-adjacent roadway improvements for the Project are described below. These improvements need to be incorporated into the Project description prior to Project approval or imposed as conditions of approval as part of the Project approval. **Figure 5.6-7, Off-Site Roadway and Site Access Improvements**, illustrates the recommended on-site and site-adjacent roadway lane improvements for the Project. Construction of on-site and site-adjacent improvements is recommended to occur in conjunction with adjacent Project development activity or as needed for Project access purposes.



**Figure 5.6-7**  
**Off-Site Roadway and Site Access Improvements**

### Site Adjacent Roadway Improvement Recommendations

1. **Imperial Highway (SR-90)** – Imperial Highway (SR-90) is an east-west oriented roadway located west of the Project. Construct Imperial Highway (SR-90) at its ultimate half-section width as a modified major (100- to 120-foot right-of-way) between Main Street and Yorba Linda Boulevard. Improvements along Imperial Highway (SR-90) would be those required by final conditions of approval for the Proposed Project and applicable City of Yorba Linda standards.
2. **Yorba Linda Boulevard** – Yorba Linda Boulevard is an east-west oriented roadway located along the Project's southern boundary. Construct Yorba Linda Boulevard at its ultimate half-section width as a modified major (100- to 120-foot right-of-way) between Imperial Highway (SR-90) and Lakeview Avenue. Improvements along Yorba Linda Boulevard would be those required by final conditions of approval for the Proposed Project and applicable City of Yorba Linda standards.

Yorba Linda Boulevard, between Imperial Highway (SR-90) and Lakeview Avenue, is currently being widened to accommodate a third westbound through lane. The improvements are anticipated to be in place by the Project's opening year (see **Sub-Appendix 1.2 of Appendix 5.6**).

3. **Lakeview Avenue** – Lakeview Avenue is a north-south oriented roadway located along the Project's eastern boundary. Construct Lakeview Avenue at its ultimate half-section width as a secondary (80-foot right-of-way) between Lemon Drive and Yorba Linda Boulevard. Improvements along Lakeview Avenue would be those required by final conditions of approval for the Proposed Project and applicable City of Yorba Linda standards.

Lakeview Avenue, between Lemon Drive and Yorba Linda Boulevard, is currently being widened to a 4-lane divided roadway. It is our understanding that the improvements are anticipated to be in place by the Project's opening year (see **Sub-Appendix 1.2 of Appendix 5.6**).

4. **Lemon Drive** – Lemon Drive is an east-west oriented roadway located along the Project's northern boundary and is currently not a designated General Plan roadway. Construct Lemon Drive at its ultimate half-section width (56-foot right-of-way) between Valencia Avenue and Lakeview Avenue. Improvements along Lemon Drive would be those required by final conditions of approval for the Proposed Project and applicable City of Yorba Linda standards.

## Site Access Improvement Recommendations

The recommended site access driveway and site adjacent intersection improvements for the Project are described below and illustrated on **Figure 5.6-7 above**. Construction of on-site and site-adjacent improvements is recommended to occur in conjunction with adjacent Project development activity or as needed for Project access purposes. These are not mitigation measures.

1. **Main Street / Lemon Drive** – Maintain the existing intersection control and the following lane geometrics:
  - Northbound Approach: One shared left-through-right turn lane
  - Southbound Approach: One shared left-through-right turn lane
  - Eastbound Approach: One shared left-through lane and one de facto right turn lane
  - Westbound Approach: One shared left-through-right turn lane
2. **Main Street / Street “A”** – Install a stop control on the westbound approach and construct the intersection with the following geometrics:
  - Northbound Approach: One shared through-right turn lane
  - Southbound Approach: One shared left-through lane
  - Eastbound Approach: N/A
  - Westbound Approach: One shared left-right turn lane
3. **Main Street / Driveway 1** – Install a stop control on the westbound approach and construct the intersection with the following geometrics:
  - Northbound Approach: One shared through-right turn lane
  - Southbound Approach: One through lane
  - Eastbound Approach: N/A
  - Westbound Approach: One right turn lane
4. **Main Street / Imperial Highway (SR-90)** – Maintain the existing intersection control and the following lane geometrics:
  - Northbound Approach: N/A
  - Southbound Approach: One right turn lane
  - Eastbound Approach: One left turn lane and two through lanes
  - Westbound Approach: One through lane and one shared through-right turn lane
5. **Imperial Highway (SR-90) / Yorba Linda Boulevard** – Maintain the existing intersection control and the following lane geometrics:
  - Northbound Approach: One left turn lane, two through lanes, and a shared through-right turn lane

- Southbound Approach: Two left turn lanes, two through lanes, and a shared through-right turn lane
- Eastbound Approach: One left turn lane, two through lanes, and a shared through-right turn lane
- Westbound Approach: One left turn lane, three through lanes, and two right turn lanes

It should be noted that improvements are currently under construction at the intersection of Imperial Highway (SR 90) and Yorba Linda Boulevard. It is anticipated that a third westbound through lane will be completed by the Project's opening year (see Sub-Appendix 1.2 of **Appendix 5.6**).

1. **School Street / Lemon Drive** – Maintain the existing intersection control and the following lane geometrics:
  - Northbound Approach: One shared left-right turn lane
  - Southbound Approach: N/A
  - Eastbound Approach: One shared through-right turn lane
  - Westbound Approach: One shared left-through lane
2. **Valencia Avenue / Lemon Drive** – Maintain the existing intersection control and the following lane geometrics:
  - Northbound Approach: One shared left-right turn lane
  - Southbound Approach: N/A
  - Eastbound Approach: One shared through-right turn lane
  - Westbound Approach: One shared left-through lane
3. **Driveway 2 / Yorba Linda Boulevard** – Maintain the existing intersection control and the following lane geometrics:
  - Northbound Approach: One shared left-through-right turn lane
  - Southbound Approach: One shared left-through-right turn lane
  - Eastbound Approach: One left turn lane, two through lanes, and a shared through-right turn lane
  - Westbound Approach: One left turn lane, four through lanes, and one shared through-right turn lane

It should be noted that improvements are currently under construction to widen Yorba Linda Boulevard between Imperial Highway (SR-90) and Lakeview Avenue to accommodate an additional westbound through lane. It is anticipated that a third westbound through lane will be completed by the Project's opening year (see **Sub-Appendix 1.2 of Appendix 5.6**).

Long-range improvement plans at this intersection include the construction of a raised median along Yorba Linda Boulevard between Imperial Highway (SR-90) and Lakeview Avenue (see **Sub-**

**Appendix 1.2 of Appendix 5.6).** The construction of a raised median will result in right-in/right-out access only at Driveway 2 and Yorba Linda Boulevard. Existing and future left-turning traffic would utilize alternative driveways to access both the Project and the existing commercial site to the south of Yorba Linda Boulevard.

1. **Lakeview Avenue / Lemon Drive** – Install a traffic signal and construct the intersection with the following geometrics:
  - Northbound Approach: One left turn lane, one through lane, and one shared through-right turn lane
  - Southbound Approach: One left turn lane, one through lane, and one shared through-right turn lane
  - Eastbound Approach: One shared left-through lane and one right turn lane
  - Westbound Approach: One shared left-through-right turn lane

These intersection improvements are currently under construction along Lakeview Avenue between Lemon Drive and Yorba Linda Boulevard. It is anticipated that these improvements would be completed by the Project's opening year (see **Sub-Appendix 1.2 of Appendix 5.6**).

2. **Lakeview Avenue / Driveway 3/Stater Bros. Driveway** – Install a traffic signal and construct the intersection with the following geometrics:
  - Northbound Approach: One left turn lane, one through lane, and one shared through-right turn lane
  - Southbound Approach: One left turn lane, one through lane, and one shared through-right turn lane
  - Eastbound Approach: One shared left-through lane and one right turn lane
  - Westbound Approach: One shared left-through-right turn lane

These intersection improvements are currently under construction along Lakeview Avenue between Lemon Drive and Yorba Linda Boulevard. It is anticipated that these improvements would be completed by the Project's opening year (see **Sub-Appendix 1.2 of Appendix 5.6**).

3. **Lakeview Avenue / Yorba Linda Boulevard** – Maintain the existing intersection control and the following lane geometrics:
  - Northbound Approach: Two left turn lanes, two through lanes, and one right turn lane
  - Southbound Approach: Two left turn lanes, one through lane, and one shared through-right turn lane
  - Eastbound Approach: One left turn lane, two through lanes, and a shared through-right turn lane

- Westbound Approach: One left turn lane, two through lanes, and a shared through-right turn lane

On-site traffic signing and striping should be implemented in conjunction with detailed construction plans for the Project Site.

Sight distance at each project access point should be reviewed with respect to standard Caltrans and City of Yorba Linda sight distance standards at the time of preparation of final grading, landscape and street improvement plans.

#### 5.6-4 Thresholds of Significance

Significance threshold criteria for traffic/access are specified in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. Under these guidelines, a project would have a potentially significant impact on traffic and circulation if it would:

- a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;
- b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;
- c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;
- d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- e) Result in inadequate emergency access; or
- f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

### 5.6-5 Impacts Analysis

**Impact 5.6-1:**

- Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system;
- Conflict with an applicable congestion management program;
- Substantially increase hazards due to a design feature or incompatible uses;
- Result in inadequate emergency access.

#### 1. Construction-Related Impacts

Construction of the Proposed Project and recommended improvements could result in temporary disruptions of normal traffic patterns on roadways or intersections in the immediate vicinity of the active construction zone. The disruption of normal traffic flow would be limited in both duration and extent, with most disruption occurring during earlier phases of construction when earthwork and utility construction is taking place. Potential traffic disruption and conflicts between construction activities and through traffic will be controlled in accordance with the California Manual on Uniform Traffic Control Devices (CA MUTCD). Additionally, the Project's grading phase of construction will include the import of approximately 100,000 cubic yards of material. The soil import activity is anticipated to generate approximately 200 truckloads per day, or 25 truckloads per hour over an 8-hour workday.

The anticipated haul route for trucking activity to the Project Site is via Imperial Highway (SR-90). As it is unclear where the source for the needed 100,000 cubic yards of fill material will be, two haul route scenarios have been evaluated in this assessment. One likely haul route assumes trucks originating from the north via the SR-57 Freeway, while another assumes trucks originating from the east via the SR-91 Freeway. Both origins would use Imperial Highway (SR-90) to access the site from the state highway system. For the purposes of this analysis, it has been conservatively assumed that for any peak hour, 100% of the heavy trucks could be distributed to SR-57 or 100% of the heavy trucks could be distributed to SR-91.

Based on this approach, the study area includes the following 22 intersections listed in **Table 5.6-5, Intersection Analysis Locations**.

**Table 5.6-5 Intersection Analysis Locations**

ID	Intersection Location	Jurisdiction	CMP?
1	SR-57 Southbound Ramps / Imperial Highway (SR-90)	Caltrans, City of Brea	Yes
2	SR-57 Northbound Ramps / Imperial Highway (SR-90)	Caltrans, City of Fullerton	Yes
3	Associated Road / Imperial Highway (SR-90)	Caltrans, City of Fullerton	No
4	Castlegate Lane/Placentia Avenue / Imperial Highway (SR-90)	Caltrans, City of Brea	No
5	Kraemer Boulevard / Imperial Highway (SR-90)	Caltrans, City of Brea	No
6	Valencia Avenue / Imperial Highway (SR-90)	Caltrans, City of Brea	Yes
7	Rose Drive / Imperial Highway (SR-90)	Caltrans, City of Placentia	Yes
8	Prospect Avenue / Imperial Highway (SR-90)	City of Yorba Linda	No
9	Imperial Highway (SR-90) / Bastanchury Road	City of Yorba Linda	No
10	Imperial Highway (SR-90) / Lemon Drive	City of Yorba Linda	No
11	Olinda Street / Imperial Highway (SR-90)	City of Yorba Linda	No
12	Main Street / Imperial Highway (SR-90)	City of Yorba Linda	No
13	Imperial Highway (SR-90) / Yorba Linda Boulevard	City of Yorba Linda	No
14	Plumosa Drive / Lemon Drive	City of Yorba Linda	No
15	Main Street / Lemon Drive	City of Yorba Linda	No
16	School Street / Lemon Drive	City of Yorba Linda	No
17	Valencia Avenue / Lemon Drive	City of Yorba Linda	No
18	Lakeview Avenue / Lemon Drive	City of Yorba Linda	No
19	Lakeview Avenue / Yorba Linda Boulevard	City of Yorba Linda	No
20	Imperial Highway (SR-90) / Orangethorpe Avenue Ramp	Caltrans, City of Anaheim	Yes
21	Imperial Highway (SR-90) / La Palma Avenue	Caltrans, City of Anaheim	No
22	Imperial Highway (SR-90) / SR-91 WB Off-Ramp	Caltrans, City of Anaheim	Yes

### Haul Trips

Trip Generation volumes are based on peak construction related traffic activity derived from the planned construction schedule. Peak traffic activity appears to occur during the grading phase of construction (i.e., import of soil), with a maximum of 200 truckloads per day. Peak hour trip generation was then estimated conservatively by placing the frequency of the construction related truck trips evenly throughout the 8-hour workday with the same number of truck trips occurring during AM and PM peak hours as during calmer mid-day hours.

The construction-related activities of the Project are anticipated to generate 400 daily truck trips (200 truckloads with one inbound and one outbound trip), which equates to 1,200 daily PCEs (passenger car equivalents). Therefore, during any given hour between 7:00 a.m. and 6:00 p.m., the construction related activities of the Project are expected to generate 50 trips (150 PCEs).

Employee related passenger car traffic is anticipated to occur outside the AM and PM peak hours. As such, construction related passenger car traffic during the peak hours are considered to be nominal.

Construction-related Project trip generation summary is shown on attached **Table 5.6-6**.

**Table 5.6-6 Construction-Related Project Haul Trips**

Project	Trips	Peak Hour (AM and PM)			Daily	Notes
		In	Out	Total		
Construction-related traffic activity	Truck Trips (Actual Vehicles)	25	25	50	400	200 truckloads (includes 1 inbound and 1 outbound trip). Assume truck hauling activities to occur within 8 hours. (400 one way trips) / 8 hours = 50 hourly trips.
	Truck Trips (PCEs)	75	75	150	1200	Passenger Car Equivalents (PCEs) = Truck Trips (Non- PCEs) x 3

### Haul Routes

As mentioned previously, the following two potential haul routes have been identified for the import of materials to the Proposed Project:

- Southbound SR-57 to southbound Imperial Highway (SR-90) to Lemon Drive to Lakeview Avenue to Project Site
- Westbound SR-91 to northbound Imperial Highway (SR-90) to Yorba Linda Boulevard to Lakeview Avenue to Project Site.

Trucks from southbound Imperial Highway (SR-90) are expected to enter and exit the site via Lemon Drive and Lakeview Avenue. Trucks from northbound Imperial Highway (SR-90) are expected to enter and exit the site via Yorba Linda Boulevard and Lakeview Avenue. To provide a conservative analysis, 100% of the peak hour truck trips have been assumed for each of the potential haul routes in this analysis (e.g., all of the material being hauled on a given peak hour could be from either of the two haul routes).

### 2016 Conditions

The lane configurations are consistent with existing conditions with the exception of the following:

1. Roadway improvements along Yorba Linda Boulevard include the addition of a third westbound through lane at the intersection of Imperial Highway (SR-90) and Yorba Linda Boulevard to Lakeview Avenue. These improvements are currently under construction.
2. Roadway improvements along Lakeview Avenue between Lemon Drive and Yorba Linda Boulevard to accommodate a four-lane divided roadway with turn lanes. Additional intersection improvements include new signal at the existing intersection of Lakeview Avenue and Lemon Drive. Lakeview Avenue will also be improved to accommodate dual northbound and southbound left turn lanes at Yorba Linda Boulevard. These improvements are currently under construction.

### 2016 Without Project Traffic Volume Forecasts

The volumes are consistent with Opening Year Cumulative (2016) Without Project volumes from the Yorba Linda Commons Traffic Impact Analysis (February 11, 2015, prepared by Urban Crossroads, **Appendix 5.6**).

### 2016 With Construction Traffic Volume Forecasts

The 2016 With Construction Traffic volumes were calculated by adding the construction related peak hour trips to the 2016 Without Project traffic volumes. The 150 PCE trip (75 PCE inbound and 75 PCE outbound) were added to the study intersections along Imperial Highway (SR-90) for both haul routes (i.e., from/to SR-57 Freeway and from/to SR-91 Freeway).

## Intersection Operations Analysis

### 2016 Without Project Traffic Conditions

LOS calculations were conducted for the study intersections to evaluate their operations under 2016 Without Project conditions and are provided in **Table 5.6-7** below.

As shown in **Figure 5.6-7**, the following study area intersections are anticipated to operate at unacceptable LOS under 2016 Without Project traffic conditions:

ID	Intersection Location
12	Main Street / Imperial Highway (SR-90) – LOS E AM peak hour only
21	Imperial Highway (SR-90) / La Palma Avenue – LOS E AM and PM peak hours

The intersection of Main Street and Imperial Highway (SR-90) is projected to operate at LOS E due to the high delays experienced by eastbound left turning vehicles from Imperial Highway (SR-90) onto Main Street. These vehicles can avoid these delays by utilizing the upstream signalized intersection at Olinda Street. Pursuant to discussions with City of Anaheim staff, the mitigation measures for the intersection of Imperial Highway (SR-90) and La Palma Avenue are not feasible due to the intersection's proximity to the adjacent SR-91 Freeway and Imperial Highway (SR-90) interchange which is operated and maintained by Caltrans. It is our understanding that there are no additional improvements planned at the intersection of Imperial Highway at La Palma Avenue and the intersection is considered to be built to its ultimate General Plan designation. As such, mitigation has not been recommended at this intersection for the purposes of this analysis.

**Table 5.6-7 Intersection Analysis for 2016 Conditions**

#	Intersection	Traffic Control <sup>2</sup>	2016 Without Project				2016 With Construction Traffic				Acceptable LOS
			Delay (secs.)		Level of Service		Delay (secs.)		Level of Service		
			AM	PM	AM	PM	AM	PM	AM	PM	
1	SR-57 SB Ramps / Imperial Hwy. (SR-90)	TS	16.0	33.2	B	C	19.0	43.1	B	D	E
2	SR-57 NB Ramps / Imperial Hwy. (SR-90)	TS	14.5	15.8	B	B	14.5	15.8	B	B	E
3	Associated Rd. / Imperial Hwy. (SR-90)	TS	27.8	31.8	C	C	28.1	32.4	C	C	D
4	Placentia Av. / Imperial Hwy. (SR-90)	TS	24.7	36.5	C	D	25.0	42.1	C	D	D
5	Kraemer Bl. / Imperial Hwy. (SR-90)	TS	32.4	35.5	C	D	32.5	35.7	C	D	D
6	Valencia Av. / Imperial Hwy. (SR-90)	TS	28.0	28.2	C	C	28.0	28.4	C	C	E
7	Rose Dr. / Imperial Hwy (SR-90)	TS	40.7	42.7	D	D	41.2	42.7	D	D	E
8	Prospect Av. / Imperial Hwy. (SR-90)	TS	24.5	26.4	C	C	26.6	27.0	C	C	D
9	Imperial Hwy. (SR-90) / Bastanchury Rd.	TS	38.1	27.2	D	C	39.5	28.7	D	C	D
10	Imperial Hwy. (SR-90) / Lemon Dr.	TS	7.1	7.8	A	A	14.9	13.7	B	B	D
11	Olinda St. / Imperial Hwy. (SR-90)	TS	8.2	11.3	A	B	8.2	11.3	A	B	D
12	Main St. / Imperial Hwy. (SR-90)	CSS	<b>38.7</b>	31.9	E	D	<b>38.7</b>	31.9	E	D	D
13	Imperial Hwy. (SR-90) / Yorba Linda Bl. <sup>4</sup>	TS	41.8	45.3	D	D	48.2	50.5	D	D	D
14	Plumosa Dr. / Lemon Dr.	AWS	8.4	8.7	A	A	9.5	9.8	A	A	D
15	Main St. / Lemon Dr.	AWS	7.9	8.8	A	A	8.7	10.1	A	A	D
16	School St. / Lemon Dr.	CSS	9.6	10.0	A	B	10.6	10.7	B	B	D
17	Valencia Av. / Lemon Dr.	CSS	9.4	9.6	A	A	10.2	10.1	A	B	D
18	Lakeview Av. / Lemon Dr. <sup>4</sup> (ICU)	TS	0.28	0.28	A	A	0.37	0.37	A	A	D
	Lakeview Av. / Lemon Dr. <sup>4</sup> (HCM)	TS	17.5	18.9	B	B	25.8	23.6	C	C	D
19	Lakeview Av. / Yorba Linda Bl. <sup>4</sup> (ICU)	TS	0.58	0.58	A	A	0.62	0.58	B	A	D
	Lakeview Av. / Yorba Linda Bl. <sup>4</sup> (HCM)	TS	48.5	39.0	D	D	60.4	43.2	E	D	D
20	Imperial Hwy. (SR-90) / Orangethorpe Av. Ramp	TS	5.7	6.4	A	A	5.7	6.4	A	A	E
21	Imperial Hwy. (SR-90) / E. La Palma Av.	TS	77.9	63.4	E	E	77.9	68.1	E	E	D
22	Imperial Hwy. (SR-90) / SR-91 WB Off-Ramp	TS	15.8	15.4	B	B	16.9	16.3	B	B	E

\***BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 Per the 2010 Highway Capacity Manual (HCM), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. HCM delay reported in seconds and ICU reported as a volume-to-capacity ratio.

2 TS = Traffic Signal; CSS = Cross-Street Stop; AWS = All-Way Stop; CSS = Improvement

3 Per the HCM 2010 methodology, the maximum number of through lanes that can be evaluated at a cross-street stop controlled intersection is three lanes.

4 Intersection analysis assumes the improvements along Yorba Linda Boulevard and Lakeview Avenue that are currently under construction.

**2016 With Construction Traffic Conditions**

As shown on **Table 5.6-7**, Project construction traffic is not anticipated to degrade the LOS at study area intersections with the exception of the intersection of Lakeview Avenue/Yorba Linda Boulevard. The intersection of Lakeview Avenue/Yorba Linda Boulevard is anticipated to operate at acceptable LOS B with construction traffic based on ICU methodology per City of Yorba Linda requirements. However, the addition of construction related traffic is anticipated to increase the average delay at during AM peak hour to 60.4 seconds (LOS E) based on HCM methodology.

Imperial Highway (SR-90) is a 6-lane major arterial roadway which currently accommodates through volumes in the range of 1500 to 2000 vehicles per hour in each direction. Addition of construction traffic (25 trucks per hour in each direction) is not anticipated to cause a significant impact to the intersection operations at the study area intersections, with the exception of intersection of Lakeview Avenue/Yorba Linda Boulevard.

### Level of Significance Before Mitigation

Impact would be potentially significant.

### Mitigation Measures

The following mitigation measures shall be implemented:

MM 5.6-1 Prior to the commencement of project construction activities, the project applicant shall prepare a construction traffic management plan in accordance with the 2012 CA MUTCD to the satisfaction of the City of Yorba Linda Traffic Engineer. These traffic management plans shall include measures determined on the basis of site-specific conditions including, as appropriate, the use of construction signs (e.g., “Construction Ahead”) and delineators, and private driveway and cross-street closures. This plan shall be approved by the City’s Traffic Engineer prior to issuance of any demolition, grading or building permit.

MM 5.6-2 **Lakeview Avenue/Yorba Linda Boulevard (#19)** – The following improvement is necessary to improve the peak hour operations at the intersection to acceptable LOS under 2016 With Construction Traffic conditions:

- Restrict the number of haul trucks in the AM peak period (7:00 a.m. to 9:00 a.m.) to no more than 15 loads per hour. With the implementation of the mitigation measure the average delay at the intersection of Lakeview Avenue/Yorba Linda Boulevard is anticipated to be 52.7 seconds (LOS D).

### Level of Significance after Mitigation

Construction impacts related to traffic would be less than significant.

### Project Related Impacts

As discussed above, the impacts of the Proposed Project relative to roadway capacities are assessed under four different scenarios:

- Existing (2014) (1 scenario)
- Existing plus Project (1 scenario)
- Opening Year Cumulative (2016), Without and With Project (2 scenarios)
- Horizon Year (2035), Without and With Project (2 scenarios)

## 2. Trip Generation

The Proposed Project is to consist of 46,258 square feet of mixed commercial retail, a 35,000-square-foot supermarket, and a 1,150-seat luxury theater (within 59,400 square feet). The site also includes an 11,080-square-foot existing office building. However, as the office building currently exists and generates traffic that has been accounted for in the existing count data, the existing office has not been included on the trip generation summary for the Project. For the purposes of this analysis, it

is assumed that the Project will be constructed within a single phase of development, and is anticipated to be fully built and operational by Year 2016. The Project is located within portions of TAZ 3 (traffic analysis zone) and all of TAZ 4 of the Yorba Linda Town Center Specific Plan. A plan-by-plan comparison is provided in **Table 5.6-8** below to summarize the proposed changes to the land uses and intensities.

**Table 5.6-8 Specific Plan/Proposed Project Use Comparison**

TAZ*	Previous Yorba Linda Town Center Specific Plan	Currently Proposed Project
1	Restaurant (6,000 square feet (SF)) General Office (4,500 SF) Single Family Detached (2 DU) Commercial Retail (20,416 SF)	No Change General Office (6,500 SF) No Change No Change
2	Commercial Retail (30,384 SF) General Office (11,200 SF) Bank (6,800 SF) Restaurant (8,000 SF) Condo/Townhouse (10 DU)	No Change No Change No Change No Change No Change
3	Library (40,000 SF) Performing Arts Center (1,200 seats) Fire Station (9,000 SF) Single Family Detached (10 DU) Church (22,000 SF) General Office (11,000 SF)	Removed from TAZ 3 (relocated to TAZ 5) Removed from TAZ 3 No Change Single Family Detached (4 DU) No Change Removed from TAZ 3
4	Restaurant (12,000 SF) General Office (17,500 SF) Commercial Retail (33,100 SF) Condo/Townhouse (26 DU)	Restaurant (18,821 SF) and Quality Restaurant (8,765 SF) General Office (11,080 SF) – Currently exists Commercial Retail (18,672 SF) Removed from TAZ 3 Luxury Theater (1,150 seats) Supermarket (35,000 SF)
5	Condo/Townhouse (50 DU) Single Family Detached (20 DU)	Removed from TAZ 5 Removed from TAZ 5 Library (45,000 SF)
6	Condo/Townhouse (50 DU)	No Change

\*See Yorba Linda Commons Traffic Impact Analysis, February 2015, Exhibit 1-2 Yorba Linda Town Center Specific Plan TAZ Overlay

Trip generation represents the amount of traffic that is attracted to and produced by a development. Determining traffic generation for a specific project is therefore based upon forecasting the amount of traffic that is expected to be attracted to and produced by the specific land uses being proposed for a given development.

Trip generation rates used to estimate Project traffic are shown in **Table 5.6-9** and a summary of the Project's trip generation is shown in **Table 5.6-10**. The trip generation rates are based upon data collected by the Institute of Transportation Engineers (ITE) for Theater (ITE Land Use Code 445), Shopping Center (ITE Land Use Code 820), Supermarket (ITE Land Use Code 850), Quality Restaurant (ITE Land Use Code 931), and High Turn-Over Restaurant (ITE Land Use Code 932) land uses in their published Trip Generation manual, 9<sup>th</sup> Edition, 2012.

**Table 5.6-9 Trip Generation Rates**

Land Use	ITE Code	Units (TSF) <sup>1</sup>	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Theater <sup>2</sup>	445	Seats	0.01	0.01	0.01	0.06	0.04	0.10	1.76
Retail	820	TSF	0.74	0.30	1.04	3.50	3.80	7.30	56.24
Supermarket	850	TSF	2.11	1.29	3.40	4.83	4.65	9.48	102.24
Quality Restaurant	931	TSF	0.41	0.41	0.81	5.02	2.47	7.49	89.95
High Turn Over Restaurant	932	TSF	5.95	4.86	10.81	5.91	3.94	9.85	127.15

Source: Institute of Transportation Engineers (ITE), Trip Generation, Ninth Edition, 2012.

1 TSF = Thousand Square Feet

2 ITE Land Use 443 Movie Theater without Matinee Weekday AM Peak Hour and daily rates were utilized as ITE Land Use 445 Multiplex Movie Theater did not have a corresponding trip generation rate.

**Table 5.6-10 Project Trip Generation Summary**

Land Use	Quantity (TSF) <sup>1</sup>	Vehicle Trip Ends						Daily
		AM Peak Hour			PM Peak Hour			
		In	Out	Total	In	Out	Total	
Theater <sup>2</sup>	1,150 Seats	6	6	12	69	46	115	2,024
Supermarket	35,000 TSF	74	45	119	169	163	332	3,578
Pad 1 (Retail)	3,250 TSF	2	1	3	11	12	24	183
Pad 1 (Food)	3,250 TSF	19	16	35	19	13	32	413
Pad 2 (Restaurant)	4,600 TSF	2	2	4	23	11	34	414
Pad 3 (Food)	4,000 TSF	24	19	43	24	16	39	509
Pad 4 (Food)	4,623 TSF	28	22	50	27	18	46	588
Shops 1 (Retail)	4,200 TSF	3	1	4	15	16	31	236
Shops 1 (Food)	2,800 TSF	17	14	30	17	11	28	356
Shops 2 (Retail)	3,240 TSF	2	1	3	11	12	24	182
Shops 2 (Food)	2,160 TSF	13	10	23	13	9	21	275
Shops 3 (Retail)	2,982 TSF	2	1	3	10	11	22	168
Shops 3 (Food)	1,988 TSF	12	10	21	12	8	20	253
Optional (Retail)	5,000 TSF	7	4	11	19	20	39	445
Existing Restaurant Pad	4,165 TSF	2	2	3	21	10	31	375
<b>Internal Trip<sup>3</sup></b>		0	0	0	-5	-5	-10	-202
<b>Pass-by Trips<sup>4</sup></b>		-10	-10	-20	-119	-119	-238	-2,980
<b>Total</b>		203	145	346	337	253	589	6,816

1 TSF = Thousand Square Feet

2 An internal capture rate of 10% was utilized to conservatively represent interactions between the Movie Theater and Mixed Retail only.

3 Pass-by reductions have been applied only to the supermarket and food uses in the AM peak hour and the supermarket, mixed retail, food, and restaurant land uses for the PM peak hour and daily. Pass-by reductions are consistent with the ITE Trip Generation Handbook, 3rd Edition.

4 Although trip generation is based on the number of seats, the trip generation assumes a maximum building square footage of 59,400 square feet.

Pass-by trips are defined as intermediate stops on the way from an origin to a primary trip destination without a route diversion. Pass-by trips are attracted from traffic passing the site on an adjacent street or roadway that offers direct access to the generator. These types of trips are many times associated with retail uses such as restaurants, supermarkets, and other retail shops. As the Project is proposed to include these types of land uses, pass-by percentages have been applied only to the supermarket and food uses in the AM peak hour and the supermarket, mixed retail, food,

and restaurant land uses for the PM peak hour and daily. Pass-by reductions are consistent with the ITE Trip Generation Handbook, 3<sup>rd</sup> Edition.

Internal capture is a percentage reduction that can be applied to the trip generation estimates for individual land uses to account for trips internal to the site. In other words, trips may be made between individual retail uses on-site and can be made either by walking or using internal roadways without using external streets. It has been assumed that approximately 10% of theater-related trips would remain within the Project boundary and only for the PM peak hour and daily. An internal capture reduction of 10% was applied to recognize the interactions that would occur between the theater and various complimentary land uses. For example, patrons of the theater may also visit the food/restaurant uses without leaving the site and are therefore considered as vehicle trips that are internal to the site.

As shown on Table 6.1 of the ITE Trip Generation Handbook, the internal capture percentage between cinema-to-retail land uses is approximately 21% during the weekday PM peak hour. As such, a 10% internal capture reduction has been utilized in an effort to estimate a conservative trip generation for the Proposed Project. Per ITE guidance, internal capture reductions has only been applied to the theater only, but not on the shopping center use as the trip generation rates for the shopping center use accounts for internal capture between uses found within a typical shopping center.

In summary, the Project would generate an estimated 6,815 total trip-ends per day on a typical weekday with an estimated 346 weekday AM peak hour trips and 589 weekday PM peak hour trips.

### **Existing Plus Project Traffic Volume Forecasts**

This scenario includes Existing traffic volumes plus Project traffic. The intersection analysis results are summarized in **Table 5.6-11**, which indicates that the following additional study area intersection is anticipated to operate at unacceptable LOS, in addition to those previously identified under Existing traffic conditions:

- 22 Driveway 2 / Yorba Linda Boulevard – LOS F PM peak hour only

**Table 5.6-11 Intersection Analysis for Existing plus Project Conditions**

#	Intersection	Traffic Control <sup>2</sup>	Existing (2014)				Existing Plus Project				Acceptable LOS
			Delay (secs.) ICU (v/c) <sup>1</sup>		Level of Service		Delay (secs.) ICU (v/c) <sup>1</sup>		Level of Service		
			AM	PM	AM	PM	AM	PM	AM	PM	
1	SR-57 SB Ramps / Imperial Hwy. (SR-90)	TS	14.7	19.6	B	B	14.8	20.0	B	C	E
2	SR-57 NB Ramps / Imperial Hwy. (SR-90)	TS	14.5	15.0	B	B	14.6	15.0	B	B	E
3	Associated Rd. / Imperial Hwy. (SR-90)	TS	26.1	30.1	C	C	26.1	30.1	C	C	D
4	Placentia Av. / Imperial Hwy. (SR-90)	TS	23.0	28.8	C	C	23.0	28.9	C	C	D
5	Kraemer Bl. / Imperial Hwy. (SR-90)	TS	31.6	34.3	C	C	31.7	34.6	C	C	D
6	Valencia Av. / Imperial Hwy. (SR-90)	TS	27.8	27.5	C	C	27.8	27.6	C	C	E
7	Rose Dr. / Imperial Hwy (SR-90)	TS	35.1	31.2	D	C	35.9	31.4	D	C	E
8	Rose Dr. / Yorba Linda Bl.	TS	0.60	0.68	A	B	0.61	0.69	B	B	D
9	Prospect Av. / Imperial Hwy. (SR-90)	TS	21.9	17.6	C	B	22.0	17.7	C	B	D
10	Imperial Hwy. (SR-90) / Bastanchury Rd.	TS	33.3	25.8	C	C	33.5	26.3	C	C	D
11	Richfield Rd. / Yorba Linda Bl.	TS	0.43	0.41	A	A	0.44	0.42	A	A	D
12	Imperial Hwy. (SR-90) / Lemon Dr.	TS	6.9	7.5	A	A	8.1	9.6	A	A	D
13	Olinda St. / Imperial Hwy. (SR-90)	TS	7.9	11.1	A	B	8.0	11.2	A	B	D
14	Main St. / Imperial Hwy. (SR-90)	CSS	<b>35.6</b>	28.2	E	D	<b>41.5</b>	34.6	E	D	D
15	Imperial Hwy. (SR-90) / Yorba Linda Bl.	TS	39.8	42.7	D	D	41.8	46.5	D	D	D
16	Plumosa Dr. / Lemon Dr.	AWS	8.3	8.6	A	A	8.6	9.1	A	A	D
17	Main St. / Lemon Dr.	AWS	7.8	8.7	A	A	8.0	9.3	A	A	D
18	Main St. / Street "A"	<b>CSS</b>	Future Intersection				9.2	9.3	A	A	D
19	Main St. / Driveway 1	<b>CSS</b>	Future Intersection				8.6	8.7	A	A	D
20	School St. / Lemon Dr.	CSS	9.6	9.9	A	A	10.0	10.5	B	B	D
21	Valencia Av. / Lemon Dr.	CSS	9.4	9.6	A	A	9.9	10.5	A	B	D
22	Driveway 2 / Yorba Linda Bl. <sup>3</sup>	CSS	20.8	31.8	C	D	28.5	<b>63.6</b>	D	F	D
23	Lakeview Av. / Bastanchury Rd.	TS	0.41	0.49	A	A	0.43	0.51	A	A	D
24	Lakeview Av. / Oriente Dr.	AWS	20.4	13.1	C	B	24.3	14.8	C	B	D
25	Lakeview Av. / Lemon Dr.	AWS	13.7	14.6	B	B	14.2	15.8	B	C	D
26	Lakeview Av. / Driveway <sup>3</sup>	CSS	11.5	14.6	B	B	13.4	32.3	B	D	D
27	Lakeview Av. / Yorba Linda Bl.	TS	0.55	0.56	A	A	0.57	0.57	A	A	D
28	Lakeview Av. / Buena Vista Av.	AWS	<b>38.9</b>	27.5	E	D	<b>42.6</b>	32.3	E	D	D
29	Kellogg Dr. / Yorba Linda Bl.	TS	0.41	0.55	A	A	0.41	0.55	A	A	D
30	Fairmont Bl. / Yorba Linda Bl.	TS	0.59	0.49	A	A	0.60	0.51	A	A	D
31	Imperial Hwy. (SR-90) / Orangethorpe Av. Ramp	TS	5.7	6.5	A	A	7.9	6.5	A	A	E
32	Imperial Hwy. (SR-90) Ramp / Orangethorpe Av.	TS	29.9	24.4	C	C	29.9	24.4	C	C	E
33	Imperial Hwy. (SR-90) / E. La Palma Av.	TS	<b>75.4</b>	<b>58.3</b>	E	E	<b>75.4</b>	<b>59.4</b>	E	E	D

Note **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

- 1 Per the 2010 Highway Capacity Manual (HCM), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. HCM delay reported in seconds and ICU reported as a volume-to-capacity ratio.
- 2 TS = Traffic Signal; CSS = Cross-Street Stop; AWS = All-Way Stop; CSS = Improvement
- 3 Per the HCM 2010 methodology, the maximum number of through lanes that can be evaluated at a cross-street stop controlled intersection is three lanes.

### Level of Significance before Mitigation

Project impacts related to on-site access and on-site roadway standards would be less-than-significant.

### Mitigation Measures

No mitigation measures are required.

### 3. Opening Year Cumulative Conditions

Future year traffic forecasts have been based upon two years of background (ambient) growth at 1.0% per year for 2016 traffic conditions. The ambient growth factor is intended to approximate regional traffic growth. The total ambient growth is 2.01% for 2016 traffic conditions (compounded growth of 1% per year over 2 years or  $1.01^2$  years). This ambient growth rate is added to existing traffic volumes to account for area-wide growth not reflected by cumulative development projects. Ambient growth has been added to daily and peak hour traffic volumes on surrounding roadways, in addition to traffic generated by the development of future projects that have been approved but not yet built and/or for which development applications have been filed and are under consideration by governing agencies.

According to information published by OCTA in the 2014 Long Range Transportation Plan, the population of Orange County is projected to increase by 13.0% in the period between 2010 and 2035, a compounded rate of approximately 1.67% annually. During the same period, employment in Orange County is expected to increase by 19.0% or 1.65% annually.<sup>88</sup> Therefore, the annual growth rate of 1.0% in conjunction with cumulative project traffic would appear to be conservative and tend to overstate as opposed to understate traffic impacts.

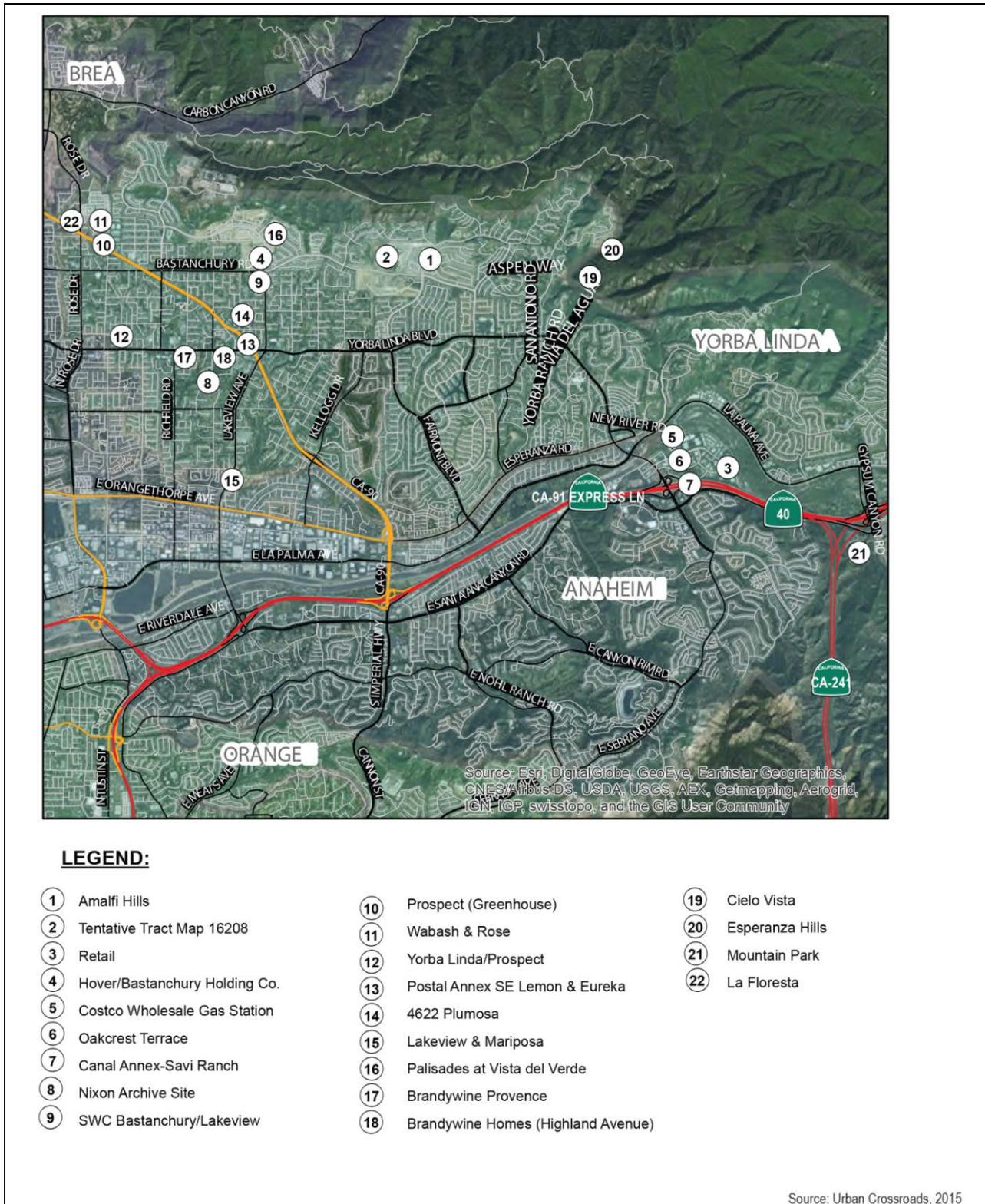
#### Cumulative Development Traffic

California Environmental Quality Act (CEQA) guidelines require that other reasonably foreseeable development projects which are either approved or being processed concurrently in the study area also be included as part of a cumulative analysis scenario. A cumulative project list was developed for the purposes of this analysis through consultation with planning and engineering staff from the City of Yorba Linda. The neighboring jurisdictions of Anaheim, Brea, and County of Orange have also been contacted to include key projects in their respective jurisdictions.

**Figure 5.6-8** illustrates the cumulative development location map. A summary of cumulative development projects and their proposed land uses are shown on **Table 5.6-12**. If applicable, the traffic generated by individual cumulative projects was manually added to the Opening Year Cumulative forecasts to ensure that traffic generated by the listed cumulative development projects in **Table 5.6-12** are reflected as part of the background traffic.

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88 Outlook 2035: Because Mobility Matters; September 12, 2014; Orange County Transportation Authority



**Figure 5.6-8  
Cumulative Development Location Map**

**Table 5.6-12 Cumulative Development Project Land Use Summary**

#	Project	Land Use	Occupancy Percentage	
			OY	2035
<b>City of Yorba Linda</b>				
1	Amalfi Hills	158 Single Family Residential Dwelling Units	100%	100%
2	Tentative Tract Map 16208	168 Single Family Residential Dwelling Units	50%	100%
3	Retail	25,500 Square Feet of Commercial Retail Uses	100%	100%
4	Hover/Bastanchury Holding Co.	47 Single Family Residential Dwelling Units	50%	100%
5	Costco Wholesale Gas Station	16 Vehicle Fueling Positions	100%	100%
6	Oakcrest Terrace	69 Apartment Units	100%	100%
7	Canal Annex - Savi Ranch	54 Apartment Units	0%	100%
8	Nixon Archive Site	51 Condo/Townhomes	100%	100%
9	SWC Bastanchury /Lakeview	68 Apartment Units (Western Parcel)	0%	100%
		180 Apartment Units (Center Parcel)	0%	100%
		40 Single Family Residential Dwelling Units (Eastern Parcel)	100%	100%
10	Prospect (Greenhouse)	48 Single Family Residential Dwelling Units	50%	100%
11	Wabash & Rose	18 Single Family Residential Dwelling Units	100%	100%
12	Yorba Linda / Prospect	80 Condo/Townhomes	100%	100%
13	Postal Annex SE Lemon & Eureka	5 Single Family Residential Dwelling Units	0%	100%
14	4622 Plumosa	10 Apartment Units	0%	100%
15	Lakeview & Mariposa	159 Apartment Units	100%	100%
16	Palisades at Vista del Verde	91 Condo/Townhomes	100%	100%
17	Brandywine Provence	28 Single Family Residential Dwelling Units	50%	100%
18	Brandywine Homes (Highland Ave.)	15 Single Family Residential Dwelling Units	50%	100%
<b>County of Orange</b>				
19	Cielo Vista	112 Single Family Residential Dwelling Units	0%	100%
20	Esperanza Hills	374 Single Family Residential Dwelling Units	0%	100%
<b>City of Anaheim</b>				
21	Mountain Park	1,675 Single Family Residential Dwelling Units	0%	100%
		825 Condo/Townhomes	0%	100%
		3,000 Square Foot Convenience Market	0%	100%
		800 Student Elementary School	0%	100%
		15 Acres of Parks	0%	100%
<b>City of Brea</b>				
22	La Floresta Development	398 Medium Density Residential Dwelling Units	100%	100%
		787 High Density Residential Dwelling Units	100%	100%
		150 Mixed-Use Residential Dwelling Units	100%	100%
		156,800 Square Feet of Mixed-Use Commercial	100%	100%
		18 Hole Golf Course	100%	100%
		20,000 Square Foot Community Center	100%	100%
		5.30 Acre Public Facility (Active Adult)	100%	100%
		75.60 Acres of Natural Open Space	100%	100%

## Intersection Operations Analysis

### Opening Year Cumulative (2016) Without Project Traffic Conditions

LOS calculations were conducted for the study intersections to evaluate their operations under Opening Year Cumulative (2016) Without Project conditions. As shown in **Table 5.6-13**, Intersection Analysis for Opening Year Cumulative (2016) Conditions and corresponding **Figure 5.6-9**, Summary of Peak Hour Intersection LOS for Opening Year Cumulative (2016) with Project Conditions, the following additional study area intersection is anticipated to operate at unacceptable LOS, in addition to those previously identified under Existing traffic conditions:

22 Driveway 2 / Yorba Linda Boulevard – LOS E PM peak hour only

### Opening Year Cumulative (2016) With Project Traffic Conditions

As shown on **Table 5.6-13** above, there were no additional study area intersections anticipated to experience unacceptable LOS with the addition of Project traffic during one or more peak hours, *in addition* to those previously identified under Opening Year Cumulative (2016) Without Project conditions.

## Horizon Year (2035) Traffic Conditions

### Horizon Year (2035) Without Project Traffic Volume Forecasts

This scenario includes the refined post-processed volumes obtained from the Yorba Linda Town Center Specific Plan. LOS calculations were conducted for the study intersections to evaluate their operations under Horizon Year Without the Project.

As noted previously, the proposed raised median along Yorba Linda Boulevard between Imperial Highway (SR-90) and Lakeview Avenue would restrict access at Driveway 2 and Yorba Linda Boulevard to right-in/right-out access only. Although the intersection is anticipated to operate at deficient LOS under Existing + Project and Opening Year Cumulative traffic conditions as a full access intersection, the intersection of Driveway 2 and Yorba Linda Boulevard is anticipated to operate at acceptable LOS during the peak hours with the proposed access restriction under Horizon Year traffic conditions.

**Table 5.6-13 Intersection Analysis for Opening Year Cumulative (2016) Conditions**

#	Intersection	Traffic Control <sup>2</sup>	2016 Without Project				2016 With Project				Acceptable LOS
			Delay (secs.) ICU (v/c) <sup>1</sup>		Level of Service		Delay (secs.) ICU (v/c) <sup>1</sup>		Level of Service		
			AM	PM	AM	PM	AM	PM	AM	PM	
1	SR-57 SB Ramps / Imperial Hwy. (SR-90)	TS	16.0	33.2	B	C	16.1	34.0	B	C	E
2	SR-57 NB Ramps / Imperial Hwy. (SR-90)	TS	14.5	15.8	B	B	14.5	15.8	B	B	E
3	Associated Rd. / Imperial Hwy. (SR-90)	TS	27.8	31.8	C	C	27.8	31.9	C	C	D
4	Placentia Av. / Imperial Hwy. (SR-90)	TS	24.7	36.5	C	D	24.7	37.3	C	D	D
5	Kraemer Bl. / Imperial Hwy. (SR-90)	TS	32.4	35.5	C	D	32.5	36.9	C	D	D
6	Valencia Av. / Imperial Hwy. (SR-90)	TS	28.0	28.2	C	C	28.0	28.3	C	C	E
7	Rose Dr. / Imperial Hwy (SR-90)	TS	40.7	42.7	D	D	40.8	46.8	D	D	E
8	Rose Dr. / Yorba Linda Bl.	TS	0.63	0.72	B	C	0.64	0.73	B	C	D
9	Prospect Av. / Imperial Hwy. (SR-90)	TS	24.7	26.4	C	C	24.8	26.6	C	C	D
10	Imperial Hwy. (SR-90) / Bastanchury Rd.	TS	38.1	27.2	D	C	38.5	27.8	D	C	D
11	Richfield Rd. / Yorba Linda Bl.	TS	0.45	0.43	A	A	0.46	0.45	A	A	D
12	Imperial Hwy. (SR-90) / Lemon Dr.	TS	7.1	7.8	A	A	8.4	9.9	A	A	D
13	Olinda St. / Imperial Hwy. (SR-90)	TS	8.2	11.3	A	B	8.2	11.4	A	B	D
14	Main St. / Imperial Hwy. (SR-90)	CSS	<b>38.7</b>	31.9	E	D	<b>45.6</b>	<b>40.3</b>	E	E	D
15	Imperial Hwy. (SR-90) / Yorba Linda Bl. <sup>4</sup>	TS	41.8	45.3	D	D	43.8	47.5	D	D	D
16	Plumosa Dr. / Lemon Dr.	AWS	8.4	8.7	A	A	8.6	9.1	A	A	D
17	Main St. / Lemon Dr.	AWS	7.9	8.8	A	A	8.1	9.4	A	A	D
18	Main St. / Street "A"	CSS	Future Intersection				9.2	9.3	A	A	D
19	Main St. / Driveway 1	CSS	Future Intersection				8.6	8.7	A	A	D
20	School St. / Lemon Dr.	CSS	9.6	10.0	A	B	10.0	10.6	B	B	D
21	Valencia Av. / Lemon Dr.	CSS	9.4	9.6	A	A	9.9	10.5	A	B	D
22	Driveway 2 / Yorba Linda Bl. <sup>3</sup>	CSS	22.2	<b>35.9</b>	C	E	31.8	<b>81.8</b>	D	F	D
23	Lakeview Av. / Bastanchury Rd.	TS	0.46	0.51	A	A	0.46	0.53	A	A	D
24	Lakeview Av. / Oriente Dr.	AWS	28.0	14.9	D	B	34.3	17.6	D	C	D
25	Lakeview Av. / Lemon Dr. <sup>4</sup>	<u>TS</u>	0.28	0.28	A	A	0.29	0.32	A	A	D
26	Lakeview Av. / Driveway 3 <sup>4</sup>	<u>TS</u>	0.23	0.33	A	A	0.28	0.39	A	A	D
27	Lakeview Av. / Yorba Linda Bl. <sup>4</sup>	<u>TS</u>	0.58	0.58	A	A	0.59	0.59	A	A	D
28	Lakeview Av. / Buena Vista Av.	AWS	<b>53.1</b>	34.4	F	D	<b>54.0</b>	<b>35.2</b>	F	E	D
29	Kellogg Dr. / Yorba Linda Bl.	TS	0.43	0.60	A	A	0.44	0.61	A	B	D
30	Fairmont Bl. / Yorba Linda Bl.	TS	0.62	0.56	B	A	0.63	0.57	B	A	D
31	Imperial Hwy. (SR-90) / Orangethorpe Ramp	TS	5.7	6.4	A	A	8.1	6.4	A	A	E
32	Imperial Hwy. (SR-90) Ramp / Orangethorpe	TS	30.6	24.5	C	C	30.9	24.6	C	C	E
33	Imperial Hwy. (SR-90) / E. La Palma Av.	TS	<b>77.9</b>	<b>63.4</b>	E	E	<b>78.9</b>	<b>64.8</b>	E	E	D

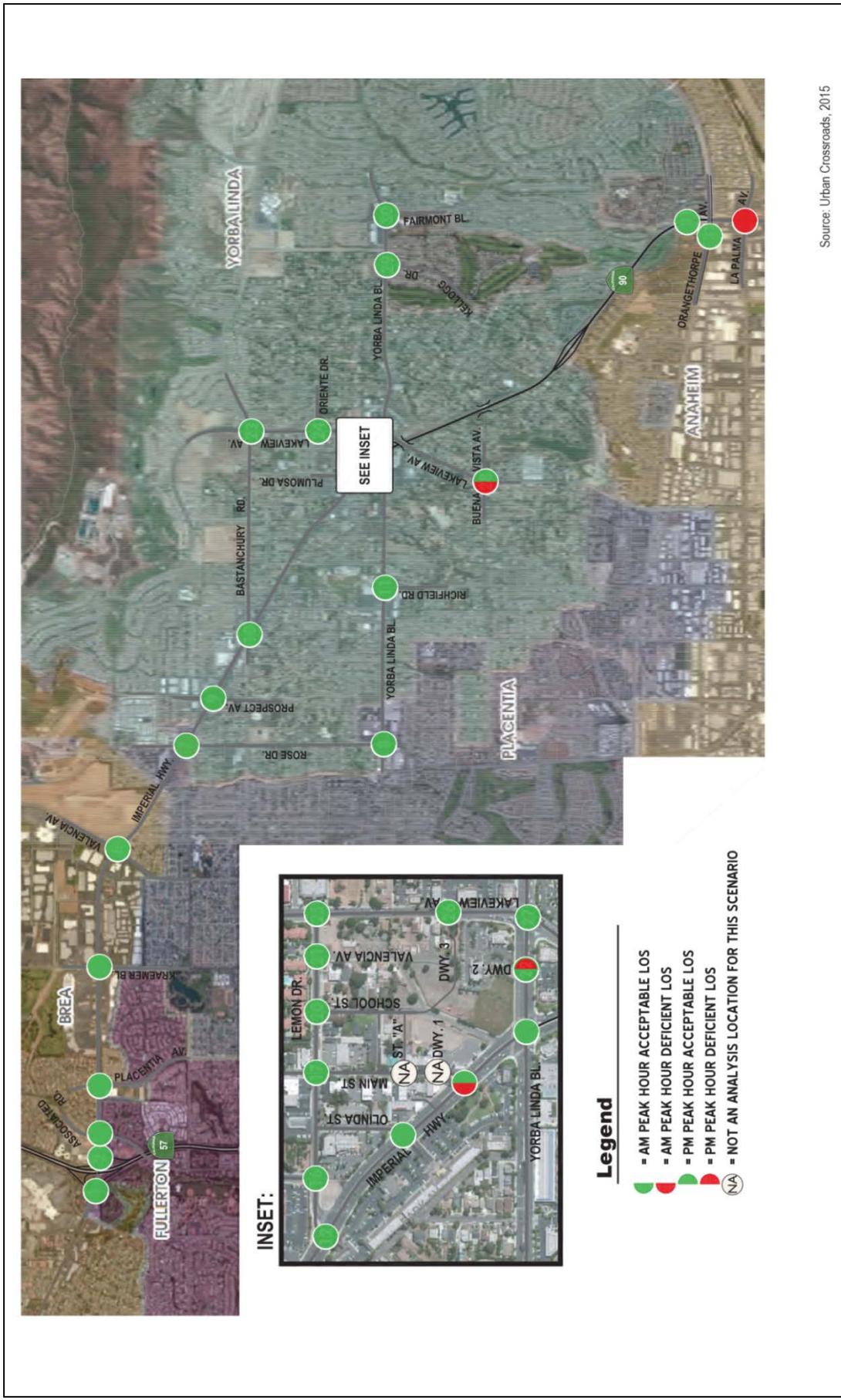
Note: **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 Per the 2010 Highway Capacity Manual (HCM), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. HCM delay reported in seconds and ICU reported as a volume-to-capacity ratio.

2 TS = Traffic Signal; CSS = Cross-Street Stop; AWS = All-Way Stop; CSS = Improvement

3 Per the HCM 2010 methodology, the maximum through lanes that can be evaluated at a cross-street stop controlled intersection is three lanes.

4 Intersection analysis assumes the improvements along Yorba Linda Boulevard and Lakeview Avenue that are currently under construction.



**Figure 5.6-9**  
**Summary of Peak Hour Intersection LOS for Opening Year Cumulative (2016) with Project Conditions**

### Horizon Year (2035) With Project Traffic Volume Forecasts

This scenario includes the refined post-processed volumes obtained from the Yorba Linda Town Center Specific Plan, plus the variance from the Proposed Project as compared to the currently adopted project. As shown on **Table 5.6-14** below, there are no additional study area intersections anticipated to experience unacceptable LOS with the addition of Project traffic during one or more peak hours, in addition to those previously identified under Horizon Year Without Project conditions.

**Table 5.6-14 Intersection Analysis for Horizon Year (2035) Conditions**

#	Intersection	Traffic Control <sup>1</sup>	2035 Without Project				2035 With Project				Acceptable LOS
			Delay (secs.) ICU (v/c) <sup>1</sup>		Level of Service		Delay (secs.) ICU (v/c) <sup>1</sup>		Level of Service		
			AM	PM	AM	PM	AM	PM	AM	PM	
1	SR-57 SB Ramps / Imperial Hwy. (SR-90)	TS	16.2	48.8	B	D	25.4	49.5	C	D	E
2	SR-57 NB Ramps / Imperial Hwy. (SR-90)	TS	24.5	17.7	C	B	24.6	17.8	C	B	E
3	Associated Rd. / Imperial Hwy. (SR-90)	TS	46.1	47.8	D	D	46.4	48.2	D	D	D
4	Placentia Av. / Imperial Hwy. (SR-90)	TS	50.3	38.9	D	D	50.7	43.3	D	C	D
5	Kraemer Bl. / Imperial Hwy. (SR-90)	TS	40.9	42.9	D	D	41.0	43.4	D	D	D
6	Valencia Av. / Imperial Hwy. (SR-90)	TS	34.7	31.6	C	C	34.7	32.1	C	C	E
7	Rose Dr. / Imperial Hwy (SR-90)	TS	33.5	51.2	C	D	45.3	51.4	D	D	E
8	Rose Dr. / Yorba Linda Bl.	TS	0.87	0.86	D	D	0.87	0.87	D	D	D
9	Prospect Av. / Imperial Hwy. (SR-90)	TS	35.1	37.3	D	D	47.1	39.0	D	D	D
10	Imperial Hwy. (SR-90) / Bastanchury Rd.	TS	54.2	33.7	D	C	54.3	34.4	D	C	D
11	Richfield Rd. / Yorba Linda Bl.	TS	0.53	0.56	A	A	0.53	0.58	A	A	D
12	Imperial Hwy. (SR-90) / Lemon Dr.	TS	13.8	21.9	B	C	14.9	26.6	B	C	D
13	Olinda St. / Imperial Hwy. (SR-90)	TS	9.5	13.1	A	B	9.5	13.3	A	B	D
14	Main St. / Imperial Hwy. (SR-90)	CSS	<b>90.9</b>	<b>94.3</b>	<b>F</b>	<b>F</b>	<b>107.2</b>	<b>130.5</b>	<b>F</b>	<b>F</b>	<b>D</b>
15	Imperial Hwy. (SR-90) / Yorba Linda Bl. <sup>4</sup>	TS	<b>59.9</b>	<b>58.8</b>	<b>E</b>	<b>E</b>	<b>61.1</b>	<b>66.8</b>	<b>E</b>	<b>E</b>	<b>D</b>
16	Plumosa Dr. / Lemon Dr.	AWS	9.6	12.1	A	B	9.7	13.1	A	B	D
17	Main St. / Lemon Dr.	AWS	8.9	16.1	A	C	8.9	19.5	A	C	D
18	Main St. / Street "A"	<b>CSS</b>	Future Intersection				9.8	10.0	A	B	D
19	Main St. / Driveway 1	<b>CSS</b>	Future Intersection				9.2	9.3	A	A	D
20	School St. / Lemon Dr.	CSS	10.5	11.4	B	B	10.7	12.0	B	B	D
21	Valencia Av. / Lemon Dr.	CSS	10.1	11.4	B	B	10.4	11.9	B	B	D
22	Driveway 2 / Yorba Linda Bl. <sup>3</sup>	CSS	22.9	27.9	C	D	25.2	30.7	D	D	D
23	Lakeview Av. / Bastanchury Rd.	TS	0.66	0.63	B	B	0.67	0.67	B	B	D
24	Lakeview Av. / Oriente Dr.	AWS	<b>43.9</b>	<b>48.4</b>	<b>E</b>	<b>E</b>	<b>44.2</b>	<b>51.3</b>	<b>E</b>	<b>F</b>	<b>D</b>
25	Lakeview Av. / Lemon Dr. <sup>4</sup>	<b>TS</b>	0.42	0.45	A	A	0.42	0.49	A	A	D
26	Lakeview Av. / Driveway 3 <sup>4</sup>	<b>TS</b>	0.41	0.50	A	A	0.44	0.56	A	A	D
27	Lakeview Av. / Yorba Linda Bl. <sup>4</sup>	TS	0.83	0.75	D	C	0.83	0.80	D	C	D
28	Lakeview Av. / Buena Vista Av.	AWS	<b>71.9</b>	<b>68.3</b>	<b>F</b>	<b>F</b>	<b>71.9</b>	<b>68.5</b>	<b>F</b>	<b>F</b>	<b>D</b>
29	Kellogg Dr. / Yorba Linda Bl.	TS	0.60	0.75	B	C	0.61	0.76	B	C	D
30	Fairmont Bl. / Yorba Linda Bl.	TS	0.72	0.71	C	C	0.73	0.71	C	C	D
31	Imperial Hwy. (SR-90) / Orangethorpe Ramp	TS	6.2	6.5	A	A	8.8	6.8	A	A	E
32	Imperial Hwy. (SR-90) Ramp / Orangethorpe	TS	40.8	26.9	D	C	44.3	26.9	D	C	E
33	Imperial Hwy. (SR-90) / E. La Palma Av.	TS	<b>88.4</b>	<b>76.0</b>	<b>F</b>	<b>E</b>	<b>89.8</b>	<b>83.5</b>	<b>F</b>	<b>F</b>	<b>D</b>

Note: **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

- 1 Per the 2010 Highway Capacity Manual (HCM), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. HCM delay reported in seconds and ICU reported as a volume-to-capacity ratio.
- 2 TS = Traffic Signal; CSS = Cross-Street Stop; AWS = All-Way Stop; CSS = Improvement
- 3 Per the HCM 2010 methodology, the maximum number of through lanes that can be evaluated at a cross-street stop controlled intersection is three lanes.
- 4 Intersection analysis assumes the improvements along Yorba Linda Boulevard and Lakeview Avenue that are currently under construction.

As shown in **Table 5.6-14** above, the following additional study area intersection is anticipated to operate at unacceptable LOS, in addition to those previously identified under Existing traffic conditions:

- 15 Imperial Highway (SR-90) / Yorba Linda Boulevard – LOS E AM and PM peak hours
- 24 Lakeview Avenue / Oriente Drive – LOS E AM and PM peak hours

### Level of Significance before Mitigation

Cumulative impacts would be significant without mitigation.

### Mitigation Measures

- MM 5.6-3 **Main Street / Imperial Highway (SR-90) (#14)** – This intersection was found to operate at an unacceptable LOS (LOS E) during the AM peak hour only under Existing traffic conditions, however, the intersection is anticipated to continue to operate at unacceptable levels during the weekday AM peak hour only with the addition of Project traffic. Pursuant to the Highway Capacity Manual (HCM), the LOS for cross-street (or side-street) stop controlled intersections is reported for the worst movement. As such, the unacceptable LOS at this intersection is related to the anticipated high delays for eastbound left-turning vehicles. The through movements along Imperial Highway (SR-90) are anticipated to operate at acceptable LOS as they are free-flow movements. It should also be noted that as delays increase for the eastbound left turning vehicles at Main Street, these vehicles can utilize the upstream signalized intersection at Olinda Street. As such, the impact is considered less-than-significant.
- MM 5.6-4 **Driveway 2 / Yorba Linda Boulevard (#22)** – This intersection was found to operate at an acceptable LOS (LOS D or better) during the peak hours under Existing traffic conditions, and the intersection is anticipated to operate at unacceptable levels during the weekday PM peak hour only with the addition of Project traffic. Pursuant to the HCM, the LOS for cross-street (or side-street) stop controlled intersections is reported for the worst movement. As such, the unacceptable LOS at this intersection is related to the anticipated high delays for northbound left-turning vehicles. The turn movements associated with the Proposed Project (e.g., southbound turn movements and westbound left turn) along with through movements along Yorba Linda Boulevard are anticipated to operate at acceptable LOS. As such, the impact is considered less than significant.
- MM 5.6-5 **Lakeview Avenue / Buena Vista Avenue (#28)** – This intersection was found to operate at an unacceptable LOS (LOS E) during the AM peak hour only under Existing traffic conditions, however, the intersection is anticipated to continue to operate at unacceptable levels during the weekday AM peak hour only with the addition of Project traffic. As such, the impact is considered significant.
- MM 5-6-6 **Imperial Highway (SR-90) / La Palma Avenue (#33)** – This intersection was found to operate at an unacceptable LOS (LOS E) during the peak hours under Existing traffic

conditions, however, the intersection is anticipated to continue to operate at unacceptable levels during the weekday AM peak hour only with the addition of Project traffic. The City of Anaheim has indicated that the intersection is currently built to its ultimate and there are no future plans to widen and improve this intersection. As such, additional improvements have been evaluated at this intersection, consistent with the methodology from the Yorba Linda Town Center Specific Plan TIA. As such, the impact is considered less than significant.

- MM 5.6-7 **Associated Road / Imperial Highway (SR-90) (#3)** – Although the intersection is anticipated to operate at acceptable LOS under Horizon Year traffic conditions, there are committed improvements at this intersection which include the addition of a fourth eastbound through lane. In comparison to the Yorba Linda Town Center Specific Plan traffic study, all of the previously identified committed improvements have since been constructed, with the exception of the 4th eastbound through lane.
- MM 5.6-8 **Kraemer Boulevard / Imperial Highway (SR-90) (#5)** – Although the intersection is anticipated to operate at acceptable LOS under Horizon Year traffic conditions, there are committed improvements at this intersection which include restriping to accommodate a third northbound through lane and the addition of a westbound right turn lane.
- MM 5.6-9 **Imperial Highway (SR-90) / Bastanchury Road (#10)** – Although the intersection is anticipated to operate at acceptable LOS under Horizon Year traffic conditions, there are committed improvements at this intersection which include the addition of a second westbound through lane.
- MM 5.6-10 **Imperial Highway (SR-90) / Yorba Linda Boulevard (#15)** – The intersection is anticipated to operate at unacceptable LOS with the addition of a third westbound through lane, which is currently under construction (anticipated completed in April 2015). However, long-range committed improvements at this intersection also include the addition of a second eastbound left turn lane and a second westbound left turn lane. The intersection is anticipated to operate at acceptable LOS during the peak hours with the addition of the committed long-range improvements.
- MM 5.6-11 **Lakeview Avenue / Bastanchury Road (#23)** – Although the intersection is anticipated to operate at acceptable LOS under Horizon Year traffic conditions, there are committed improvements at this intersection which include the addition of a second southbound through lane. In comparison to the Yorba Linda Town Center Specific Plan traffic study, all of the previously identified committed improvements have since been constructed, with the exception of the second southbound through lane.
- MM 5.6-12 **Lakeview Avenue / Yorba Linda Boulevard (#27)** – The intersection is anticipated to operate at acceptable LOS with the addition of a second northbound left turn lane and second southbound left turn lane, which are currently under construction (anticipated completed in April 2015). However, long-range committed improvements at this intersection also include the addition of a second eastbound left turn lane and a second

westbound left turn lane. The intersection is anticipated to operate at acceptable LOS during the peak hours with the addition of the committed long-range improvements.

MM 5.6-13 **Lakeview Avenue / Oriente Drive (#24)** – The intersection is anticipated to operate at unacceptable LOS under long-range traffic conditions. Although there are no committed improvements funded through the CIP at this intersection, the General Plan improvements at this intersection call for signalization and widening of Lakeview Avenue as a four-lane divided roadway. The traffic signal at this intersection is anticipated to be warranted under Horizon Year Without Project traffic conditions. As such, the intersection has been evaluated with the installation of a traffic signal, a northbound left turn lane, a second northbound through lane, a southbound left turn lane, and a second southbound through lane.

MM 5.6-14 **Imperial Highway (SR-90) / La Palma Avenue (#3)** – The intersection is anticipated to continue operate at unacceptable LOS under long-range traffic conditions. The City of Anaheim has indicated that the intersection is currently built to its ultimate and there are no future plans to widen and improve this intersection. As such, additional improvements have been evaluated at this intersection, consistent with the methodology from the Yorba Linda Town Center Specific Plan Traffic Impact Analysis.

### Cumulative Mitigation Measures

MM 5.6-15 Project to contribute on a fair share basis towards the installation of a traffic signal to improve the existing deficiency at Lakeview Avenue/Buena Vista Avenue.

MM 5.6-16 Project to contribute on a fair share basis towards the installation of a traffic signal to improve the existing deficiency at Lakeview Avenue/Oriente Drive.

### Level of Significance after Mitigation

Impacts would remain significant and unavoidable at the intersection of Imperial Highway/La Palma Avenue (City of Anaheim).

## 6. Alternatives

### 6.1 Purpose

California Environmental Quality Act (CEQA) Guidelines §15126.6 provides that the purpose of the alternatives section of an EIR is to assess a range of reasonable alternatives to the Proposed Project, or to the location of the Project, that would feasibly attain most of the basic objectives of the Project but would avoid or substantially lessen any of the significant effects of the Project. The EIR must also include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the Proposed Project. The discussion of alternatives should be governed by the “rule of reason.” Generally, significant effects of an alternative shall be discussed, but in less detail than the Proposed Project.

### 6.2 Introduction

As stated above, the principal purpose of the alternatives analysis is to assess a range of project alternatives that would reduce the magnitude of, or eliminate, potential project-related impacts. However, the CEQA Guidelines place some restrictions on the range of alternatives an EIR must address. An EIR need only examine those alternatives that meet most basic objectives of the project. Also, the CEQA Guidelines stipulate that alternatives addressed in an EIR should be feasible and should not be considered remote or speculative. When addressing feasibility, the CEQA Guidelines state that “among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, jurisdictional boundaries, and whether the applicant can reasonably acquire, control or otherwise have access to the alternative site.”

It was determined that, because the Proposed Project is a modification to the previously approved Specific Plan, for purposes of the Town Center Alternatives analysis an update to the Specific Plan analysis would be prepared. In addition, one alternative specifically addressing the revised site plan and uses would be prepared.

Based on these CEQA-driven directives, alternatives to the Project that would reduce significant adverse impacts without undermining basic project objectives were selected for analysis in this section. The objectives of the proposed Town Center Specific Plan project are listed in **Section 2, Project Description**, of this EIR.

## **6.3 Town Center Alternatives**

This section addresses four alternatives to the Proposed Project. Specific alternatives include:

### **6.3-1 Alternative 1: No Project Alternative**

This alternative is required by the CEQA Guidelines and compares the impacts that might occur if the site is left in its current condition with those that would be generated by the Proposed Project. Under this alternative, no development or redevelopment would occur beyond what exists today, and the Project area would retain the existing zoning designations. In addition, the existing circulation system would remain the same.

### **6.3-2 Alternative 2: Residential Replaces Supermarket Use**

This alternative would allow residential development on approximately 1.5 acres in the central portion of the Project area replacing the proposed supermarket use. Up to 30 dwelling units could be developed with a residential density of 20 dwelling units per acre, or up to 15 dwelling units could be developed with a residential density of 10 dwelling units per acre. For purposes of this analysis, the residential units would consist of attached units. Residential uses would replace the proposed supermarket use. In addition, the potential parking structure to support the performing arts venue would not be needed or constructed. Other elements of the Town Center Plan would remain as proposed.

### **6.3-3 Alternative 3: Expanded Park Replaces Supermarket Use**

This alternative would expand the central park and replace the proposed supermarket use. Approximately 1.5 acres of community park would be provided in place of the supermarket use. Other elements of the Town Center Plan would remain as proposed.

### **6.3-4 Alternative 4: Preservation of One of the Cottages**

Alternative 4 would preserve one of the three cottages (located at 4871 School Street) that currently exist on the project site. Under the Proposed Project all three cottages would be removed to another site or salvaged and demolished. Other elements of the Town Center Plan would remain as proposed.

### **6.3-5 Impacts of the Yorba Linda Town Center Project**

**Section 5, Environmental Impact Analysis**, disclosed that the Proposed Project would result in potentially significant impacts to three resource areas (cultural resources, air quality, and traffic and circulation). After mitigation, impacts in all three areas would remain significant and unavoidable. In all other resource areas, the project's impacts would be less than significant.

## 6.4 Potential Environmental Impacts

### 6.4-1 Alternative 1: No Project

CEQA requires that a “No Project” alternative be considered. The no project alternative generally is considered to be equivalent to a “no development” alternative. The purpose of a no project alternative is to allow decision makers to compare the impacts of approving the Proposed Project with the impacts of not approving the Proposed Project.

With this alternative, the Town Center Project would not be implemented. More specifically, because there would be no grading, construction, or operational activities associated with this alternative, there would not be impacts related to cultural resources, air quality, global climate change, noise, and traffic and circulation.

Adoption of Alternative 1 would not necessarily preclude ultimate development of the project site in accordance with the existing General Plan and zoning regulations for the site, or land use designations or regulations subsequently adopted by the City. However, if development is proposed in the future, like the Proposed Project, such development would be subject to environmental review.

On balance, Alternative 1 is considered to be the “environmentally superior” alternative since fewer of the environmental effects of the Project would occur. However, because the Proposed Project would not be implemented under this alternative, few of the Project objectives set forth in this EIR in **Section 2, Project Description**, would be attained. Project objectives not fully met or impeded by Alternative 1 are identified in **Table 6-1, Comparison of Alternatives Consistency with Project Objectives Matrix** (page 6-10).

### 6.4-2 Alternative 2: Residential Replaces Supermarket Use

This alternative would allow residential development on approximately 1.5 acres in the central portion of the Project area on the proposed supermarket use parcel. Up to 30 dwelling units could be developed with a residential density of 20 dwelling units per acre, or up to 15 dwelling units could be developed with a residential density of 10 dwelling units per acre. For purposes of this analysis, the residential units would consist of attached units.

This alternative residential use would replace the proposed supermarket. Other elements of the Town Center Project would remain as proposed. Project-related circulation improvements would be implemented. The following discussion compares the potential environmental impacts of this alternative to those associated with implementation of the Proposed Project.

### **1. Cultural Resources**

Under the Town Center Project analysis, potential impacts to historical resources would be significant and unavoidable, as the cottages would be removed from the Project Site. For purposes of environmental analysis it is assumed that the cottages would be salvaged but demolished, thereby resulting in significant and unavoidable impacts. Consequently, potential impacts to cultural resources associated with Alternative 2, would be similar when compared to the Proposed Project.

### **2. Land Use and Planning**

Under Alternative 2, residential uses would replace the potential supermarket use. Residential uses are allowed under the Community Core Area Plan designation in the General Plan. Up to 15 dwelling units with a residential density of 10 dwelling units per acre could be developed consistent with General Plan acreage, dwelling unit allowance, and density provisions. Up to 30 dwelling units with a residential density of 20 dwelling units per acre also would be consistent with General Plan acreage, dwelling unit allowance, and density. Residential uses in the Town Center planning area would not realize all of the economic and social objectives associated with the Town Center plan. The Town Center Project would amend the Yorba Linda Town Center Specific Plan to reflect changes necessary to implement the design and use concept of the proposed Town Center Project. The proposed Town Center Project would expand Town Center commercial uses, reduce the area allocated for civic/cultural and public facility uses, and eliminate the Cottage District. Land use and planning impacts would be greater for Alternative 2 when compared to the Proposed Project.

### **3. Air Quality**

For the Proposed Project, construction-related air quality impacts would be significant and unavoidable after mitigation measures are implemented because of the amount of soil hauling required to implement the Town Center Project.

The development footprint, site preparation, and grading under this alternative would result in reduced construction impacts due to the absence of the parking structure (resulting in less soil hauling impacts) and would, therefore, result in fewer significant and unavoidable impacts for construction-related air quality impacts. As discussed below, the number of vehicle trips would be fewer but would have traffic impacts similar to the Proposed Project. As with the Proposed Project, operational air quality impacts for Alternative 2 would be less than significant, and no mitigation would be required.

### **4. Global Climate Change**

Development of the project site, under either Alternative 2 or the Proposed Project, would require clearing and grading of the ground surface, installation of infrastructure, and construction of the

proposed improvements. These activities typically involve the temporary use of heavy equipment, smaller equipment, and motor vehicles. The development footprint would be similar for the Alternative 2 and the Proposed Project, and similar impacts relating to global climate change would result. With recommended mitigation, less than significant impacts would result for both the project and Alternative 2.

## 5. Noise

Development of the project site, under either Alternative 2 or the Proposed Project, would require clearing and grading of the ground surface, installation of infrastructure, and construction of the proposed improvements. These activities typically involve the temporary use of heavy equipment, smaller equipment, and motor vehicles, all of which generate steady static and episodic noise. Although vehicle-related noise is identified as a less than significant impact for the Proposed Project, implementation of Alternative 2 would generate a lesser amount of vehicle traffic as compared with the Proposed Project. Overall, with recommended mitigation, less than significant noise impacts would result for both the Proposed Project and Alternative 2.

## 6. Traffic and Circulation

Per Tables 4-1 and 4-2 in the traffic impact analysis in Appendix 5.6, the Project would generate 6,815 gross vehicle trips ends per day. Alternative 2 residential uses would generate fewer trips per day when compared to the supermarket use. Although Alternative 2 generates fewer daily trips, potential impacts to study area intersections virtually remain the same as with the Proposed Project. The same intersection improvements would be required for Alternative 2. Thus, for Alternative 2, traffic and circulation impacts would remain significant and unavoidable after implementation of recommended mitigation.

## 7. Conclusion on Environmental Analyses

A summary comparison of impacts associated with the Project alternatives is provided in **Table 6-2, Alternatives Impact Comparison Matrix** (page 6-12).

## 8. Analysis of Project Objectives

While Alternative 2 generally is considered environmentally superior to the Proposed Project, Alternative 2 does not satisfy all of the project objectives, which are set forth in this EIR at **Section 2, Project Description**. Project objectives not fully met or impeded by Alternative 2 are identified in **Table 6-1, Comparison of Alternatives Consistency with Project Objectives Matrix** (page 6-10).

### **6.4-3 Alternative 3: Expanded Park Replaces Supermarket Use**

This alternative would expand the central park proposed within the Civic/Cultural Arts and Public Facilities District. Approximately 1.5 acres of community park would be provided in place of a potential 35,000-square-foot supermarket use. Other elements of the Town Center Project would remain as proposed. The following discussion compares the potential environmental impacts of this alternative to those associated with implementation of the Proposed Project.

#### **1. Cultural Resources**

Although less building construction would likely occur, the development footprint, site preparation, and grading under this alternative would be similar to the Proposed Project. As with the Proposed Project, potential impacts to historical resources would remain significant and unavoidable. Consequently, potential cultural resources impacts associated with Alternative 3 would be similar to those of the Proposed Project.

#### **2. Land Use and Planning**

Under Alternative 3, an expanded central park would replace the proposed supermarket use. Recreation and park uses are allowed under Specific Plan zoning. Land use impacts would not be significant with Alternative 3 or the Project as proposed. As with the Proposed Project, no significant impacts to land use and planning would result from Alternative 3.

#### **3. Air Quality**

For the Proposed Project, local construction-related air quality impacts on sensitive receptors would be significant and unavoidable after mitigation measures are implemented. Although less building construction would likely occur, the development footprint, site preparation, and grading under this alternative would be similar to the Proposed Project and would, therefore, result in similar significant and unavoidable impacts for construction-related air quality impacts. Although fewer vehicle trips would likely be associated with Alternative 3, operational and cumulative air quality impacts would be less than significant, and no mitigation would be required, as with the Proposed Project.

#### **4. Global Climate Change**

Development of the Project Site, under either Alternative 3 or the Proposed Project, would require clearing and grading of the ground surface, installation of infrastructure, and construction of the proposed improvements. These activities typically involve the temporary use of heavy equipment, smaller equipment, and motor vehicles. The development footprint would be similar for the both Alternative 3 and the Proposed Project, and similar impacts relating to global climate change would result. Fewer vehicle trips would be associated with Alternative 3 and, as with the Proposed Project, direct/indirect emission impacts would be less than significant. Overall, with

recommended mitigation, less than significant impacts would result for both the project and Alternative 3 and impacts would be fewer.

## 5. Noise

The level of building construction would be reduced with this alternative, and the associated duration of construction would be reduced. However, development of the project site, under either Alternative 3 or the Proposed Project, would require clearing and grading of the ground surface, installation of infrastructure, and construction of the proposed improvements. These activities typically involve the temporary use of heavy equipment, smaller equipment, and motor vehicles, all of which generate steady static and episodic noise. The development footprint would be similar for Alternative 3 and the Proposed Project; however, the duration of construction noise would likely be reduced. Although vehicle-related noise is identified as a less than significant impact for the Proposed Project, implementation of Alternative 3 would generate a lesser amount of vehicle traffic as compared with the Proposed Project. Overall, with recommended mitigation, less than significant noise impacts would result for both the project and Alternative 3.

## 6. Traffic and Circulation

Alternative 3 would produce fewer trips for both construction and operational conditions as compared with the Proposed Project. Potential traffic associated with additional park area would be less as compared with the proposed supermarket use included in the Project. However, the significant impacts identified in the traffic analysis primarily relate to 2035 cumulative project conditions and would occur with Alternative 3 or with the Project. Although Alternative 3 would generate fewer trips, identified circulation deficiencies would remain the same, and significant and unavoidable impacts would result as with the Proposed Project.

## 7. Conclusion on Environmental Analyses

A summary comparison of impacts associated with the Project alternatives is provided in **Table 6-2, Alternatives Impact Comparison Matrix** (page 6-12). As a general matter, Alternative 3 is environmentally superior to the Proposed Project. Alternative 3 would incrementally reduce impacts in comparison to the Project because less building construction would occur.

## 8. Analysis of Project Objectives

While Alternative 3 generally is considered environmentally superior to the Proposed Project, Alternative 3 does not satisfy all of the Project objectives, which are set forth in this EIR at **Section 2, Project Description**. Project objectives not fully met or impeded by Alternative 3 are identified in **Table 6-1, Comparison of Alternatives Consistency with Project Objectives Matrix** (page 6-10).

#### **6.4-4 Alternative 4: Preservation of One Cottage**

Alternative 4 would preserve one of the three cottages (located at 4871 School Street) that currently exist on the Project Site. Under the Proposed Project all three cottages would be either removed to another site or salvaged and demolished. Other elements of the Town Center Project would remain as proposed. The following discussion compares the potential environmental impacts of this alternative to those associated with implementation of the Proposed Project.

##### **1. Cultural Resources**

Although a cottage would be preserved, the development footprint, site preparation, and grading under this alternative would be similar to the Proposed Project. As with the Proposed Project, potential impacts to historical resources would be significant and unavoidable but to a lesser extent, as one cottage would be preserved. Consequently, potential cultural resources impacts associated with Alternative 4 would be less when compared to those of the Proposed Project.

##### **2. Land Use and Planning**

Under Alternative 4, a cottage would be preserved. All other uses proposed under the Town Center site plan would be realized. Preservation of the cottage is allowed under the Specific Plan zoning. Preservation of the cottage would be consistent with General Plan acreage, dwelling unit allowance, and density provisions. Land use impacts would not be significant with Alternative 4 or the Project as proposed. As with the Proposed Project, no significant impacts to land use and planning would result from Alternative 4, and impacts would be similar.

##### **3. Air Quality**

For the Proposed Project, local construction-related air quality impacts on sensitive receptors would be significant and unavoidable after mitigation measures are implemented. Similar building construction would likely occur, as the development footprint, site preparation, and grading under this alternative would be similar to the Proposed Project and would, therefore, result in similar significant and unavoidable impacts for construction-related air quality impacts. Vehicle trips would likely be similar to the Proposed Project with Alternative 4, operational and cumulative air quality impacts would be less than significant, and no mitigation would be required, as with the Proposed Project.

##### **4. Global Climate Change**

Development of the Project Site, under either Alternative 4 or the Proposed Project, would require clearing and grading of the ground surface, installation of infrastructure, and construction of the proposed improvements. These activities typically involve the temporary use of heavy equipment, smaller equipment, and motor vehicles. The development footprint would be similar for Alternative 4 and the Proposed Project, and similar impacts relating to global climate change

would result. Similar vehicle trips would be associated with Alternative 4 and, as with the Proposed Project, direct/indirect emissions impacts would be less than significant. Overall, with recommended mitigation, less than significant impacts would result for both the Project and Alternative 4, and impacts would be similar.

## 5. Noise

The level of building construction would be similar to the Proposed Project with this alternative, and the associated duration of construction would be similar as well. However, development of the Project Site, under either Alternative 4 or the Proposed Project, would require clearing and grading of the ground surface, installation of infrastructure, and construction of the proposed improvements. These activities typically involve the temporary use of heavy equipment, smaller equipment, and motor vehicles, all of which generate steady static and episodic noise. The development footprint would be similar for Alternative 4 and the Proposed Project. Although vehicle-related noise is identified as a less than significant impact for the Proposed Project, implementation of Alternative 4 would generate a similar amount of vehicle traffic noise when compared with the Proposed Project. Overall, with recommended mitigation, less than significant noise impacts would result for both the Project and Alternative 4.

## 6. Traffic and Circulation

Alternative 4 would produce similar vehicular trips for construction and operational conditions when compared to the Proposed Project. Potential traffic associated with the preservation of the cottage would be similar when compared with the Proposed Project. However, the significant impacts identified in the traffic analysis primarily relate to 2035 cumulative project conditions and would occur with Alternative 4 or with the Project. Alternative 4 would generate similar trips, identified circulation deficiencies would remain the same, and significant and unavoidable impacts would result as with the Proposed Project.

## 7. Conclusion on Environmental Analyses

A summary comparison of impacts associated with the Project alternatives is provided in **Table 6-2, Alternatives Impact Comparison Matrix** (page 6-12). As a general matter, Alternative 4 is not environmentally superior to the Proposed Project. Alternative 4 would generally have similar impacts in comparison to the Project, even though one cottage would be preserved.

## 8. Analysis of Project Objectives

Alternative 4 would not be considered environmentally superior to the Proposed Project from a project objectives perspective.

### 6.4-5 Comparative Analysis of Project Objectives

As part of the Project alternatives analysis, consistency with Project objectives must be evaluated. **Table 6-1, Comparison of Alternatives Consistency with Project Objectives Matrix** (page 6-10), lists the City project objectives for the Yorba Linda Town Center Project (also stated in **Section 2, Project Description**) and indicates whether each Project alternative meets, partially meets, or fails to meet project objectives.

**Table 6-1 Comparison of Alternatives Consistency with Project Objectives Matrix**

Project Objective	Alternative 1 No Project	Alternative 2 Residential Replaces Supermarket Use	Alternative 3 Expanded Park Replaces Supermarket Use	Alternative 4 Preservation of One Cottage
Create an upscale dining and shopping destination to serve local area residents, businesses, and visitors.	F	P	P	P
In keeping with the Town Center Specific Plan vision, deliver a well-designed and architecturally pleasing commercial center that offers new and exciting tenants in a welcoming environment.	F	P	P	M
Develop a project that serves as a community gathering space, and one that enhances surrounding uses and businesses.	F	P	M	P
In keeping with the Town Center vision, create a pedestrian-friendly shopping and dining experience, as well as provide efficient on-site and off-site traffic circulation so that customers can easily and safely access the Project	F	P	P	M
Open the project in calendar year 2016 to capture key retail and restaurant users, and deliver the community a project that has been considered for many years.	F	P	P	M

KEY (Level of Consistency with Project Objectives):

M = Alternative Meets Project Objective

P = Alternative Partially Meets Project Objective

F = Alternative Fails to Meet Project Objective

### 6.4-6 Off-Site Alternatives

Alternative sites of generally the same size in the central area of Yorba Linda do not exist. Consistent with General Plan intent, the Proposed Project involves development and redevelopment of the existing Town Center to create a community destination and a coordinated strategy for revitalization of underutilized parcels. No potential alternative project sites in the local vicinity are similar in acreage or provide similar characteristics. No potential alternative sites exist that could serve primary project objectives. For the reasons cited above, no alternative sites were analyzed for this project.

### 6.4-7 Environmentally Superior Alternative

The CEQA Guidelines require that the discussion of Project alternatives focus on those alternatives that can feasibly attain the basic objectives of the Project while avoiding or reducing the significant impacts of the Project as proposed. **Table 6-2, Alternatives Impact Comparison Matrix** (page 6-12), provides a summary of alternatives discussed in this section in relation to environmental impacts and the ability to meet Project objectives.

Alternative 1, No Project, would reduce the number and extent of environmental impacts associated with the Proposed Project. However, this alternative would not meet the basic Project objectives, which call for creating a vision and a land use plan for reuse of underutilized parcels that would result in an attractive community destination.

Alternative 2, Residential Replaces Supermarket Use, would allow residential development on 1.5 acres adjacent to the central park and would replace the proposed supermarket use. This alternative would be environmentally superior to the Proposed Project. Furthermore, Alternative 2 would mostly satisfy the outlined Project objectives, but may not as fully accomplish creating an attractive Town Center environment that serves as a community destination for a variety of events and gatherings and addresses a broad a range of resident, businesses, and visitor needs.

Alternative 3, Expanded Park Replaces the Supermarket Use, would expand the central park by 1.5 acres. The expanded park area would replace the proposed supermarket use. This alternative would reduce the number and extent of environmental impacts associated with the Proposed Project. Section 15126.6(e)(2) of the CEQA Guidelines indicates that, if the No Project Alternative (Alternative 1) is the “environmentally superior” alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. Among the remaining Project alternatives, Alternative 3 is considered to be the "environmentally superior" alternative for purposes of CEQA because fewer use trips would be generated, reducing air quality, global climate change, noise, and traffic and circulation impacts. However, this alternative would not fully meet or would impede some of the fundamental Project objectives.

Alternative 4, Preservation of One Cottage Residence (located at 4871 School Street), would keep the remainder of the Project the same. This alternative would preserve one of the cottages while maintaining the remainder of the proposed uses. Alternative 4 would not satisfy all of the Project objectives even while incrementally reducing the impacts to cultural resources by preserving one of the cottages because the project would preclude construction of the parking structure. This alternative would not be considered the environmentally preferred alternative as it would still incur the significant and unavoidable cultural resources, air quality, and traffic and circulation impacts.

**Table 6-2 Alternatives Impact Comparison Matrix**

Environmental Topic	Alternative 1 No Project	Alternative 2 Residential Replaces Supermarket Use	Alternative 3 Expanded Park Replacing Supermarket Use	Alternative 4 Preserve One of the Cottages
Cultural Resources	L	S	S	L
Land Use and Planning	G	S	S	S
Air Quality	L	L	L	S
Global Climate Change	L	L	L	S
Noise	L	L	L	S
Traffic and Circulation	L	L	L	S

KEY (Level of Impact in Comparison to the Proposed Project):

G = Alternative Produces Greater Level of Impact

S = Alternative Produces Similar Level of Impact

L = Alternative Produces Lesser Level of Impact

## 7. Effects Not Found Significant

### 7.1 Introduction

Section 15128 of the California Environmental Quality Act (CEQA) Guidelines requires an environmental impact report (EIR) to briefly describe any possible significant effects that were determined not to be significant and were, therefore, not discussed in detail in the EIR. This section addresses the potential environmental effects that have been found not to be significant as a result of the distribution of a Notice of Preparation/Initial Study and the responses (included as **Appendix 1**). This section includes the environmental questions contained in the Initial Study and a discussion as to why the issues were found not to be significant. Any issues not addressed in this section are addressed in **Section 5, Environmental Impact Analysis**.

### 7.2 Aesthetics

To assist in determining whether a project will have a significant effect on the environment, the CEQA Guidelines identify criteria for conditions that may be deemed to constitute a substantial or potentially substantial adverse change in physical conditions. Specifically, Appendix G of the CEQA Guidelines (Environmental Checklist Form) lists the following items to be considered when determining whether a project may have a significant aesthetic resource impact. Given that the Town Center Project proposes revisions to a previously approved Specific Plan that governs infill development/redevelopment within downtown Yorba Linda, the Initial Study determined that the Proposed Project would not:

- a) Have a substantial adverse effect on a scenic vista;
- b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- c) Substantially degrade the existing visual character or quality of the site and its surroundings; or
- d) Create a source of substantial light or glare which would adversely affect day or nighttime views in the area.

### 7.3 Agriculture

To assist in determining whether a project will have a significant effect on the environment, the CEQA Guidelines identify criteria for conditions that may be deemed to constitute a substantial or potentially substantial adverse change in physical conditions. Specifically, Appendix G of the CEQA Guidelines (Environmental Checklist Form) lists the following items to be considered when determining whether a project may have a significant agricultural resource impact. Given that the Town Center Project proposes revisions to a previously approved Specific

Plan that governs infill development/redevelopment within downtown Yorba Linda, the Initial Study determined that the Proposed Project would not:

- 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; or
- 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.

#### **7.4 Biological Resources**

To assist in determining whether a project will have a significant effect on the environment, the CEQA Guidelines identify criteria for conditions that may be deemed to constitute a substantial or potentially substantial adverse change in physical conditions. Specifically, Appendix G of the CEQA Guidelines (Environmental Checklist Form) lists the following items to be considered when determining whether a project may have a significant biological resource impact. Given that the Town Center Project proposes revisions to a previously approved Specific Plan that governs infill development/redevelopment within downtown Yorba Linda, the Initial Study determined that the Proposed Project would not:

- 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 Game 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 Game or U.S. Fish and Wildlife Service;
- c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- e) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;

- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

## 7.5 Geological Resources

To assist in determining whether a project will have a significant effect on the environment, the CEQA Guidelines identify criteria for conditions that may be deemed to constitute a substantial or potentially substantial adverse change in physical conditions. Specifically, Appendix G of the CEQA Guidelines (Environmental Checklist Form) lists the following items to be considered when determining whether a project may have a significant geological resource impact. Given that the Proposed Project is located within an already urbanized area, the Initial Study determined that the Town Center Project would not:

- a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault (refer to Division of Mines and Geology *Special Publication 42*);
  - ii) Strong seismic ground shaking;
  - iii) Seismic-related ground failure, including liquefaction;
  - iv) Landslides
- b) Result in substantial soil erosion or the loss of topsoil;
- c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;
- d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property; or
- e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

## 7.6 Hazards and Hazardous Materials

To assist in determining whether a project will have a significant effect on the environment, the CEQA Guidelines identify criteria for conditions that may be deemed to constitute a substantial or potentially substantial adverse change in physical conditions. Specifically, Appendix G of the CEQA Guidelines (Environmental Checklist Form) lists the following items to

be considered when determining whether a project may have a significant hazards or hazardous materials impact. A Hazardous Materials Screening (HMS) for the Town Center Specific Plan Project, dated July 2, 2010 and prepared by Ninyo & Moore Geotechnical and Environmental Sciences Consultants for the Town Center Specific Plan Draft EIR, 2011. The HMS determined that with the implementation of mitigation measures impacts would be less than significant. Given that the Town Center Project is located within an area already addressed by the preparation of an HMS, the Initial Study determined that the Proposed Project would not:

- 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 create a significant hazard to the public or the environment;
- e) Be located within two miles of a public airport or public use airport;
- f) Be located within the vicinity of a private airstrip, resulting in a safety hazard for people residing or working in the project area;
- g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; and
- h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

## 7.7 Hydrology and Water Quality

To assist in determining whether a project will have a significant effect on the environment, the CEQA Guidelines identify criteria for conditions that may be deemed to constitute a substantial or potentially substantial adverse change in physical conditions. Specifically, Appendix G of the CEQA Guidelines (Environmental Checklist Form) lists the following items to be considered when determining whether a project may have a significant geological resource impact. Given that the Town Center Project is located within an already urbanized area, the Initial Study determined that the Proposed Project would not:

- a) Violate any water quality standards or waste discharge requirements;
- b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells

- would drop to a level which would not support existing land uses or planned uses for which permits have been granted).
- c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site;
  - d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;
  - e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff;
  - f) Otherwise substantially degrade water quality;
  - g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;
  - h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows;
  - i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of failure of a levee or dam; and
  - j) Result in inundation by seiche, tsunami, or mudflow

## 7.8 Mineral Resources

To assist in determining whether a project will have a significant effect on the environment, the CEQA Guidelines identify criteria for conditions that may be deemed to constitute a substantial or potentially substantial adverse change in physical conditions. Specifically, Appendix G of the CEQA Guidelines (Environmental Checklist Form) lists the following items to be considered when determining whether a project may have a significant mineral resource impact. Given that the Town Center Project is located within an already urbanized area, the Initial Study determined that the Proposed Project would not:

- 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; and/or
- 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.

## 7.9 Population and Housing

To assist in determining whether a project will have a significant effect on the environment, the CEQA Guidelines identify criteria for conditions that may be deemed to constitute a substantial or potentially substantial adverse change in physical conditions. Specifically, Appendix G of the CEQA Guidelines (Environmental Checklist Form) lists the following items to

be considered when determining whether a project may have a significant population and housing impact. Given that the Town Center Project proposes revisions to a previously approved Specific Plan that governs infill development/redevelopment within downtown Yorba Linda, the Initial Study determined that the Proposed Project would not:

- a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads and other infrastructure);
- b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere; or
- c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

### **7.10 Public Services**

To assist in determining whether a project will have a significant effect on the environment, the CEQA Guidelines identify criteria for conditions that may be deemed to constitute a substantial or potentially substantial adverse change in physical conditions. Specifically, Appendix G of the CEQA Guidelines (Environmental Checklist Form) lists the following items to be considered when determining whether a project may have a significant public services impact. Given that the Town Center Project proposes revisions to a previously approved Specific Plan that governs infill development/redevelopment within downtown Yorba Linda, the Initial Study determined that the Proposed Project would not:

- a) Create substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:
  - Fire Protection
  - Police Protection
  - Schools
  - Parks
  - Other public facilities

### **7.11 Recreation**

To assist in determining whether a project will have a significant effect on the environment, the CEQA Guidelines identify criteria for conditions that may be deemed to constitute a substantial or potentially substantial adverse change in physical conditions. Specifically, Appendix G of the CEQA Guidelines (Environmental Checklist Form) lists the following items to be considered when determining whether a project may have a significant recreation impact. Given that the Town

Center Project proposes revisions to a previously approved Specific Plan that governs infill development/redevelopment within downtown Yorba Linda, the Initial Study determined that the Proposed Project would not:

- 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, or
- b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

## 7.12 Utilities and Service Systems

To assist in determining whether a project will have a significant effect on the environment, the CEQA Guidelines identify criteria for conditions that may be deemed to constitute a substantial or potentially substantial adverse change in physical conditions. Specifically, Appendix G of the CEQA Guidelines (Environmental Checklist Form) lists the following items to be considered when determining whether a project may have a significant utilities and service systems impact. Given that the Town Center Project proposes revisions to a previously approved Specific Plan that governs infill development/redevelopment within downtown Yorba Linda, the Initial Study determined that the Proposed Project would not:

- a) Exceed wastewater treatment requirements of the Central Coast Region of the Regional Water Quality Control Board;
- b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed;
- e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; or
- g) Comply with federal, state, and local statutes and regulations related to solid waste.

## 8. Significant Irreversible Environmental Changes

### 8.1 Introduction

Section 15126.2 of the California Environmental Quality Act (CEQA) Guidelines states that use of nonrenewable resources during the initial and continued phases of a Proposed Project may be irreversible if a large commitment of these resources makes their removal, indirect removal, or non-use thereafter unlikely. This section of the EIR evaluates whether the project would result in the irretrievable commitment of resources, or would cause irreversible changes in the environment. Also, in accordance with §15126.2 of the CEQA Guidelines this section identifies any irreversible damage that could result from environmental accidents associated with the Proposed Project.

### 8.2 Irreversible Commitment of Resources

Implementation of the Proposed Project would include the development of a gross building area of between 125,345 and 149,295 square feet. The project will consist of 1- and 2-story structures organized around a central open space (“commons”) and a strong distributed pedestrian network. Proposed uses include retail, restaurants, cinema, and supermarket totaling approximately 125,345 to 149,295 square feet (maximum) of gross leasable area (GLA). The existing 2-story office building within the project area will remain. Parking will be provided by a combination of parking structure located to the north of the commons area and surface parking distributed across the site achieving a ratio of approximately 4.8 stalls per 1,000 square feet of GLA.

Construction and operation of the Proposed Project would contribute to the incremental depletion of resources, including renewable and non-renewable resources. Resources, such as lumber and other forest products are generally considered renewable resources. Such resources would be replenished over the lifetime of the project. For example, lumber supplies are increased as seedlings mature into trees. As such, the development of the project would not result in the irreversible commitment of renewable resources. Nevertheless, there would be an incremental increase in the demand for these resources over the life of the project. Non-renewable resources, such as natural gas, petroleum products, asphalt, petrochemical construction materials, steel, copper, and other metals, and sand and gravel are considered to be commodities which are available in a finite supply. The processes that created these resources occur over a long period of time. Therefore, the replacement of these resources would not occur over the life of the project. To varying degrees, the aforementioned materials are all readily available and some materials, such as asphalt or sand and gravel, are abundant. Other commodities, such as metals, natural gas, and petroleum products, are also readily available, but they are finite in supply given the length of time required by the natural process to create them.

The demand for all such resources is expected to increase regardless of whether or not the project is developed. The Southern California Association of Governments indicates that the population of Southern California will increase 33% over the 30-year period between 2005 and 2035. These increases in population will directly result in the need for more retail and commercial facilities to provide the needed services associated with this growth. If not consumed by this project, these resources would likely be committed to other projects in the region intended to meet this anticipated growth. Furthermore, the investment of resources in the project would be typical of the level of investment normally required for retail-commercial uses of this scale.

### **8.3 Irreversible Environmental Changes**

Irreversible long-term environmental changes associated with the Proposed Project would include a change in the visual character of the site as a result of the conversion of an older downtown area to a newer retail-commercial center and residential uses. Additional irreversible environmental changes would include the increase in local and regional vehicular traffic, and the resultant increase in air pollutants and noise emissions generated by this traffic, among other impacts. Design features have been incorporated into the development proposal and previously approved Specific Plan and Standard Conditions. Mitigation measures are proposed in this EIR that would minimize the effects of the environmental changes associated with the development of the project to the maximum degree feasible. Even this being the case, the Project would result in significant and unavoidable construction related air quality impacts to on- and off-site sensitive receptors, , cultural resources, and cumulative traffic and circulation.

### **8.4 Potential Environmental Damage from Accidents**

The project proposes no uniquely hazardous uses, and its operation would not be expected to cause environmental accidents that would affect other areas. The project site is located within a seismically active region and would be exposed to ground shaking during a seismic event. Conformance with the regulatory provisions of the City of Yorba Linda and the California Building Code pertaining to construction standards would minimize, to the extent feasible, damage and injuries in the event of such an occurrence. During the preparation of the Hazardous Materials Screening, soil contamination was determined to be of concern on the project site due to the possible presence of petroleum hydrocarbons. Because the development of the project would require construction activities that may disturb soil or encounter groundwater located on the site, these materials could cause health and safety problems to on-site construction workers and the community. According to the Yorba Linda Town Center Specific Plan Draft EIR Mitigation Measures MM 5.2-2 and MM 5.2-3, a soil management plan shall be implemented prior to the construction activities a limited subsurface assessment shall be conducted to determine the possible presence of petroleum hydrocarbons in accordance with applicable local, state, and federal regulations. Removal of these materials would reduce impacts to less than significant. All

contaminated soil would be remediated in accordance with City standards. In conclusion, the Proposed Project would not create a situation where irreversible environmental damage could be caused by accidents on the Project Site.

## 9. Growth Inducement

### 9.1 Introduction

Section 15126.2(d) of the California Environmental Quality Act (CEQA) Guidelines, as amended, requires the discussion of the ways in which a project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Such a discussion should also include projects that would remove obstacles to population growth, and the characteristics of a project, which may encourage and/or facilitate other activities that, either individually or cumulatively, could significantly affect the environment. CEQA emphasizes that growth in an area should not be considered beneficial, detrimental or of little significance. The purpose of this section is to evaluate the growth-inducing potential and impact of this Project.

### 9.2 Growth-Inducing Criteria

In general terms, a project may foster spatial, economic or population growth in a geographic area if it meets any one of the criteria that are identified below.

- Removal of an impediment to growth (e.g., the establishment of an essential public service or the provision of new access to an area);
- Economic expansion or growth (e.g., construction of additional housing, changes in revenue base, employment expansion, etc.);
- Establishment of a precedent-setting action (e.g., an innovation, a change in zoning or general plan designation); and/or
- Development or encroachment in an isolated or adjacent area of open space (being distinct from an “infill” type of project).

If a project meets any one of these criteria, it can be considered growth inducing. An evaluation of this project compared against these growth-inducing criteria is provided below.

#### 9.2-1 Removal of an Impediment to Growth

Growth in an area may result from the removal of physical impediments or restrictions to growth, as well as the removal of planning impediments resulting from land use plans and policies. In this context, physical growth impediments may include nonexistent or inadequate access to an area or the lack of essential public services (e.g., water service), while planning impediments may include restrictive zoning and/or general plan designations.

The project area contains established land uses and supporting infrastructure that were approved with the Yorba Linda Town Center Specific Plan. Construction of the uses proposed on the project

site may require the modification and/or replacement of existing infrastructure to support the increased land use intensity associated with the Town Center. Given the urban nature of the site and surroundings, and the existence of established infrastructure, no growth inducing impacts would result from project development. A more detailed discussion of infrastructure extension/upgrades associated with the project is addressed below.

An established transportation network exists in the surrounding area that offers local and regional access to the project site. Bordered by Imperial Highway, Yorba Linda Boulevard and Lakeview Avenue, existing public roads through the site will be realigned and vacated per the Mobility & Circulation Chapter 5 of the Specific Plan. On-site circulation would be facilitated by a system of internal access roads and parking lots. The internal circulation system would allow motorists to reach any part of the site without re-entering the adjacent street system. Sidewalks would be provided in front of each building area to allow for movement of pedestrians between building locations. In addition, the project would include some off-site improvements such as the installation of turn-lanes and signals at off-site intersection locations to mitigate for project impacts. On-site and off-site improvements would be designed to serve the Proposed Project. As such, the improvement of on-site and off-site circulation to serve the project would not induce growth within the area.

The water, sewer, and energy (electricity and natural gas) infrastructure required to support the Proposed Project would be available to the project site from surrounding streets. Water service to the project site would be provided by a 4-inch and 6-inch lines located in Main Street, School Street, New Street "A" and Valencia Avenue. Sewer service to the project site will be served by a 6-inch and 8-inch lines within the project area. No new water or sewer mains other than those required to serve the project site would be constructed. As such, the development of on-site water and sewer infrastructure to serve the project would not induce growth within the area.

Electricity and natural gas transmission infrastructure presently exists on and in the vicinity of the project site. Development of the project may necessitate an increase in conductor sizes and the installation of new high and low voltage conductors to convey this energy to uses on the site. This system would be designed to accommodate the uses proposed within the project, and would not extend beyond the requirements or boundary of the project. The on-site service lines will be sized to meet the demands of the Proposed Project. No growth inducing impacts due to the increase in size of electrical or natural gas service lines would occur with the development of the project.

In summary, the design and construction of roadways, water, sewer, electrical, and natural gas infrastructure needed to accommodate the project would not induce growth within undeveloped areas surrounding the project area.

### 9.2-2 Economic Growth

The second criterion by which growth inducement can be measured involves economic considerations. In the short-term, the Proposed Project would provide for short-term construction employment opportunities. It is anticipated that construction employees would commute from elsewhere in the region, rather than relocate to the City of Yorba Linda for a temporary assignment.

Long-term growth, should it occur, would primarily be in the form of an economic response to the increased employment opportunities that would occur on the site. Long-term full-time and part-time jobs would be generated. Given that unemployment in Yorba Linda stands at 2.9%, or 1,000 individuals,<sup>89</sup> it is reasonable that some of the employment opportunities associated with the project will be filled by current residents of the City. In addition, it is likely that existing residents of the City and surrounding communities will fill many of the part-time employment opportunities associated with the project. Nonetheless, any small increase in persons commuting from outside the area or potentially relocating to the area may result in a corresponding slight increase in demand for City goods and services. Given this project's relatively small size in relation to the City population and work force, the economic contribution of this project alone would not be considered significant. Furthermore, the City has a total of 22,856 housing units<sup>90</sup>, with approximately 22,109 units occupied (i.e., vacancy rate of approximately 3.3%). Given the existing vacancy rate making 747 units available and because additional residential developments are expected to be constructed in the near future (estimated 151 units for the Yorba Linda Town Center Specific Plan project and 1,299 units on the Citywide project list), any growth in housing demand would be adequately accommodated. Nonetheless, the small increase in population and economic activity potentially generated by the Proposed Project could be considered growth inducing. Such an increase is not considered substantial, since this increase does not exceed the amount of growth projected for the City.

### 9.2-3 Precedent-Setting Action

Changes from a project that could be precedent-setting include (among others) a change in zoning, general plan designation, general plan text or approval of exceptions to regulations that could have implications for other properties or that could make it easier for other properties to develop.

The current General Plan land use and zoning designations for the Yorba Linda Town Center site are Town Center Specific Plan (TCSP). Implementation of the project would involve a zone change the TCSP to modify certain aspects of the TCSP to accommodate refinements to Land Use District boundaries and allowable uses.

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<sup>89</sup> California Employment Development Department, *Monthly Labor Force Data for Cities and Census Designated Places (CDP)*, December 2014 – Preliminary.

<sup>90</sup> <http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php>

Although the change in zoning could encourage other requests for land use designations or rezoning of other properties, each application would be considered by the City of Yorba Linda on a project-by-project basis. The proposed change in the TCSP would only apply to the project site, would not encompass other properties, and would not facilitate the development of other projects. For these reasons, the project would not be considered growth inducing.

#### 9.2-4 Development of or Encroachment Isolated on Open Space

Development can be considered growth inducing when it requires the extension of urban infrastructure into isolated localities, which are presently devoid of such facilities. The project site is situated in an area that is surrounded to the north, east, south, and west by urban areas that contain established infrastructure. The Park Place-Park Avenue district (which contains smaller retail-commercial buildings and residential dwelling units) is located directly to the west across Imperial Highway from the Yorba Linda Town Center site. Retail-commercial development, including the Yorba Linda Station Plaza Shopping Center, is located to the south across Yorba Linda Boulevard. Residential dwelling units are located directly east and north of the project site along Lakeview Avenue and Lemon Drive. Furthermore, the project site is bound by Lakeview Avenue on the east, by Yorba Linda Boulevard on the south and by Imperial Highway direction on the west. Consequently, the project would not induce growth under this criterion since it would not result in the urbanization of land in an isolated location.

It must be emphasized that the CEQA Guidelines require an environmental impact report (EIR) to “discuss the ways” a project could be growth inducing and to “discuss the characteristics of some projects that may encourage ... activities that could significantly affect the environment.” However, the CEQA Guidelines do not require that an EIR should predict (or speculate), specifically where such growth would occur, in what form it would occur, or when it would occur. Clearly, the answers to such questions require great speculation, which CEQA discourages.<sup>91</sup> Attempting to determine the environmental impacts created by growth that could be induced by the Proposed Project is speculative in that the size, type, and location of specific, future projects, which may be induced, by this project are unknown at the present time. To the extent that specific projects are known (as discussed in **Section 5** of this EIR), those projects either have already been or will be subject to their own environmental analysis. Furthermore, it is speculative to state conclusively that implementation of the project alone would induce growth in the surrounding area, as there are many variables that must be considered when examining the mechanics of urban growth (e.g., market forces, demographic trends). Impacts associated with growth in the Yorba Linda area can be found in the cumulative analyses for each topic that was analyzed in **Section 5, Environmental Impact Analysis**. Individual cumulative impact assessment methodology is contained within each issue addressed within this EIR.

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91 CEQA Guidelines, §15145.

## 10. List of Preparers

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