

I. Executive Summary



I. Executive Summary

1. Introduction

In accordance with California Environmental Quality Act (CEQA) Guidelines Sections 15088, 15089, and 15132, the City of Long Beach, as Lead Agency, has prepared this Final Environmental Impact Report (Final EIR) for the 2nd & PCH Project (the Project) proposed by PCH Property, LLC (the Project Applicant).

As described in CEQA Guidelines Sections 15089 and 15132, a lead agency must prepare a Final EIR before approving a project. The purpose of a Final EIR is to provide an opportunity for the lead agency to respond to comments made by the public and agencies regarding a project's Draft EIR. Pursuant to CEQA Guidelines Section 15132, this Final EIR includes a revised summary; corrections and additions to the Draft EIR; a list of persons, organizations, and agencies that provided comments on the Draft EIR; responses to comments received regarding the Draft EIR; and a Mitigation Monitoring and Reporting Program (MMRP).

This Final EIR constitutes the second part of the EIR for the Project and is intended to be a companion to the Draft EIR. The Draft EIR for the Project, which circulated for public review and comment from April 21, 2017, through June 5, 2017, constitutes the first part of the EIR and is incorporated by reference and bound separately. This Final EIR is organized into four main sections as follows:

Section I. Executive Summary—This section provides an overview of the Project and its potential impacts. Also included in this section are areas of controversy and issues to be resolved, an overview of the public review process that was completed for the Project, and a summary of the alternatives to the Project.

Section II. Corrections and Additions to the Draft EIR—This section provides a list of revisions that have been made to the Draft EIR for the Project, based on comments received from public agencies and the general public, and other items requiring updating and/or correction. This section also includes an analysis demonstrating the proposed corrections and additions would not result in new significant impacts.

Section III. Responses to Comments—This section presents a matrix of the individuals and parties that commented on the Draft EIR and the issues they raised. The matrix is followed by enumerated comments (provided verbatim) followed by responses to each of the written comments made regarding the Draft EIR. Copies of the full original comment letters are provided in Appendix FEIR-A of this Final EIR.

Section IV. Mitigation Monitoring and Reporting Program (MMRP)—This section provides the full MMRP for the Project. The MMRP lists all of the Project’s proposed, recommended, and/or required project design features and mitigation measures by environmental topic and identifies for each of the features and measures the necessary action indicating compliance, relevant monitoring phase, monitoring agency, and enforcement agency. For purposes of this EIR, measures established by regulation that apply to the Project are included as project design features.

This Final EIR also includes the following appendices:

Appendix FEIR-A. Draft EIR Comment Letters—This appendix to the Final EIR includes copies of all written comments received on the Draft EIR.

Appendix FEIR-B. Review of Public Comments on DEIR Historic Resources Analysis—This memorandum prepared by GPA Consulting addresses comments received regarding the analysis of potentially historic resources provided in the Draft EIR and supports some of the responses to comments provided in Section III, Responses to Comments, of this Final EIR.

Appendix FEIR-C. Biological Resources Document Review—Draft EIR for 2nd & PCH Project—This memorandum prepared by Dudek presents a review of several biological resource evaluations from various environmental documents associated with past and present development proposals on the Project Site. The memorandum supports some of the responses to comments provided in Section III, Responses to Comments, of this Final EIR.

Appendix FEIR-D. Air Quality and Greenhouse Gas Memorandum—This memorandum prepared by Eyestone Environmental provides additional analysis of air quality and greenhouse gas (GHG) impacts in response to certain public comments. The memorandum supports some of the responses to comments provided in Section III, Responses to Comments, of this Final EIR.

Appendix FEIR-E. 2nd and PCH Project—Construction Noise Mitigation Memorandum—This memorandum prepared by Acoustical Engineering Services (AES) describes proposed revisions to Mitigation Measure I-1. The memorandum supports some

of the responses to comments provided in Section III, Responses to Comments, of this Final EIR.

2. Background and Existing Site Conditions

The two-story, approximately 238,000-square-foot Seaport Marina Hotel (currently vacant) and 457 surface parking spaces are located on the Project Site. Access to the Project Site is provided via driveways along 2nd Street, Pacific Coast Highway (PCH), and Marina Drive. On-site landscaping includes trees, shrubs, and grasses throughout the courtyards, near the swimming pool, and some landscaping along the building perimeters and surface parking areas. A row of palm trees also lines both PCH and Marina Drive.

The Project Site is designated as Land Use District (LUD) No. 7, Mixed Use District, by the City's General Plan. As set forth in the General Plan, uses intended for LUD No. 7 include employment centers, such as retail uses, offices, and medical facilities; higher density residences; visitor-serving facilities; personal and professional services; and recreational facilities. The Project Site also is located within a coastal zone and is therefore subject to the requirements of the City's Local Coastal Program.

The Project Site is zoned by the Long Beach Municipal Code (LBMC) as Subarea 17 within Planned Development District 1 (PD-1), Southeast Area Development and Improvement Plan (SEADIP). As described in the SEADIP, PD-1 provides for a community of residential, business, and light industrial uses integrated by an extensive system of parks, open space, and trails. The SEADIP specifically identifies commercial uses within Subarea 17 and, with the exception of the general development provisions applicable to the entire development area, does not include specific development and use standards for Subarea 17.¹

3. Overview of the Proposed Project

PCH Property, LLC, the Project Applicant, proposes to replace the existing SeaPort Marina Hotel and associated amenities and surface parking areas on the Project Site with a commercial development comprising approximately 245,000 square feet of gross floor area, including approximately 95,000 square feet of retail uses, a 55,000-square-foot grocery store, a 25,000-square-foot fitness/health club, and 70,000 square feet of

¹ *The SEADIP states that Subarea 17 is fully developed in accordance with the Retail Center (CR) zone. Based on modifications to the City's Zoning Regulations, the CR zone now corresponds to the City's Community Commercial Automobile-Oriented (CCA) District. In accordance with the Long Beach Municipal Code, uses allowed in the CCA District include retail and service uses for an entire community such as convenience and comparison shopping goods and associated services.*

restaurant uses, including 40,000 square feet of full service dining, 25,000 square feet of fast food, and 5,000 square feet of ready-to-eat dining. The proposed uses would be located in four buildings laid out in a village format, with three buildings fronting PCH and one building fronting Marina Drive. The buildings would consist of one and two stories each, ranging in height from 30 feet to a maximum of 35 feet.² A total of 1,150 parking spaces, or a ratio of approximately 4.7 per 1,000 square feet of gross floor area, would be provided within two main parking structures, including a second-level parking deck above some of the single-story uses. Landscaped courtyards and open space areas also would be provided throughout the Project Site.

a. Project Design

The retail and commercial uses would be located within a series of one- and two-story structures situated along PCH and Marina Drive, with landscaped setbacks along the adjacent street frontages. The PCH frontage would be characterized by extensive landscaping and a series of one-story structures (with intermittent taller architectural elements) and second-level (i.e., rooftop) parking. These buildings, which would house a variety of retail uses, would feature varied rooflines but would not exceed a height 35 feet, as defined in the Long Beach Municipal Code. Along Marina Drive, the Project would provide a landscaped setback and include a two-story structure of up to 35 feet in height, which would include retail, fast-food, and ready-to-eat restaurant uses with outdoor seating patios on the ground level and full-service restaurant uses with outdoor seating patios and terraces on the upper level, thus offering ocean views and enhancing the waterfront experience.³ The Project would include extensive landscaping, a central plaza and paseos, amenities such as informal seating areas and water features, and an interior village streetscape to enhance the pedestrian experience. The proposed retail and restaurant uses and associated parking areas (described further below) would be connected throughout the Project Site via landscaped pedestrian walkways.

The Project would be designed in a contemporary architectural style with elements conjuring images of water and the coast. The Project also would integrate various architectural and pedestrian elements throughout the buildings to create a community destination. The new buildings would include building fenestration, a variety of surface

² *The proposed buildings would have sloped roofs, with a maximum midpoint height of 35 feet. Per Long Beach Municipal Code Section 21.15.1330, the height of a building with a sloped roof is the vertical distance above grade, as defined in Section 21.15.1190, to the midpoint height of the highest sloped roof. While some architectural elements housing elevators and mechanical equipment would have higher roof heights of 40 and 56.5 feet, these features are not included in the measurement of height for commercial buildings per Long Beach Municipal Code Section 21.15.1330.E.*

³ *Full-service restaurant uses represent "Restaurant, dinner" uses LBMC Section 21.15.2320.*

materials and colors, and varying rooftop designs to create horizontal and vertical articulation, provide visual interest, and reduce building scales. Building materials would include wood, tile, metal panels, aluminum frames, plaster, and glass. Glass used in building façades would be non-reflective and designed to meet California Building Code Title 24 requirements. Enhanced paving materials including patterned concrete, stone, or brick would be utilized along walkways and other outdoor surface areas.

b. Access and Parking

Vehicular access to the Project Site would be provided via driveways on PCH, Marina Drive, and 2nd Street. Specifically, two driveways located on PCH would provide access to the two-way drive aisle (“Main Street”) within the site interior, connecting to parking structures at the northern and southern ends of the Project Site. Of the three driveways along Marina Drive, the southern driveway would provide direct access to the southern parking structure, the northern driveway would provide direct access to the northern parking structure, and the middle driveway would provide access to the northern parking structure as well as the interior Main Street. In addition, a driveway along 2nd Street would provide right-in/right-out access to the northern parking structure.

Pedestrian access to the Project Site would be provided via sidewalks along PCH, Marina Drive, and 2nd Street, as well as via crosswalks at the intersections of PCH and 2nd Street and Marina Drive and 2nd Street. Landscaped pedestrian pathways would be provided throughout the Project Site, including around the perimeter of the proposed buildings and parking structures and through the plaza and paseos, in addition to crosswalks across Main Street within the site interior.

Parking would be provided in parking structures located at the northern and southern ends of the Project Site, as well as a second-level parking deck located above the proposed single-story uses along PCH. More specifically, the northern parking structure would provide ground-level parking and a second-level (rooftop) parking deck. This parking deck would extend above the adjacent single-story grocery store and southerly above the other single-story buildings along PCH. The parking deck also would connect to the southern parking structure, which would include three levels plus rooftop parking with a maximum height of 35 feet.⁴ The upper levels of this structure would extend over the southernmost buildings on-site. Together, a total of 1,150 parking spaces, or a ratio of approximately 4.7 per 1,000 square feet of gross floor area, would be provided, consisting of 219 parking spaces on the ground level of the northern parking structure, 417 spaces on

⁴ *The height of the proposed parking structure excludes mechanical equipment penthouses in accordance with Long Beach Municipal Code Section 21.15.1330.*

the second-level parking deck, and 514 spaces within the multi-level parking deck located at the southern end of the Project Site.

c. Landscaping and Open Space

Landscaped pedestrian pathways would be provided around portions of the Project Site perimeter, and landscaped pedestrian-oriented open space areas such as the plaza and paseos would be provided within the site interior. These collective open space areas would include pedestrian seating, enhanced paving, planters, and accent trees. In addition to any existing trees that would remain, new trees would be provided along the Project Site's street frontages. Landscape planters and hardscape features, including shade trees, palm trees, and shrub planters, also would be distributed throughout the upper level of the Project Site and within the dining terraces. Additionally, landscape screening of the parking garage would be included. In total, approximately 146,797 square feet (approximately 3.37 acres or 31.3 percent of the total Project Site area) of open space would be provided on-site, which would exceed the open space requirements of the SEADIP (i.e., approximately 140,698 square feet or 30 percent of the total Project Site area). In addition, any threshold-size on-site trees or street trees removed during construction of the Project would be replaced in accordance with the City's Tree Maintenance Policy and other applicable City requirements.

d. Lighting and Signage

The Project would include exterior lighting on buildings for security and wayfinding purposes, as well as entryway lighting within the parking structures, and along driveways and roadways for safety. In addition, low-level lighting to accent architectural, signage, and landscaping elements would be incorporated throughout the Project Site. In accordance with City guidelines, on-site lighting would be shielded or directed toward areas to be lit to limit spill-over onto off-site uses.

Project signage would include monument signs, area identification signs, tenant identification wall signs, directional signage, and wall signs for advertising purposes within the interior of the Project Site as well as on the buildings' street front façades and window signs on retail storefronts. Signage may be freestanding, projected, raised, and externally illuminated and/or consist of channel letters.⁵ All Project signage would be visually integrated with the proposed development and would feature colors and lighting that are complementary to the architectural design of the proposed buildings.

⁵ *Channel letter signs are individually illuminated letters and graphics.*

e. Sustainability Features

The Project would incorporate features to support and promote environmental sustainability. “Green” principles are incorporated throughout the Project to comply with the City of Long Beach Green Building Ordinance (Ordinance No. ORD-09-0013) and the sustainability intent of the U.S. Green Building Council’s Leadership in Energy and Environmental Design (LEED®) program. In particular, the Project would meet the requirements for LEED® Certification (or equivalent) by incorporating a variety of transportation-related, energy conservation, water conservation, waste reduction, sustainable construction material, and indoor air quality features.

f. Project Construction

Project construction would commence with demolition of the existing hotel and associated amenities and surface parking areas, followed by grading and limited excavation for the placement of building footings. Building foundations would then be laid, followed by building construction, paving/concrete installation, and landscape installation. Project construction is anticipated to occur over approximately 16 months, with completion anticipated in 2019. Project grading would require an estimated 7,582 cubic yards of soil removal. An estimated 6,688 cubic yards of this soil would be reused on-site for a net export volume of 894 cubic yards.⁶ As part of the Project, a Construction Traffic Management Plan would be implemented during construction to minimize potential conflicts between construction activity and through traffic. The Construction Traffic Management Plan would be subject to City review and approval.

g. Necessary Approvals

The City of Long Beach has the principal responsibility for approving the Project. Approvals required for development of the Project may include, but not be limited to, the following:

- Site Plan Review;
- Lot Tie to merge 6400 E. Pacific Coast Highway and 6280 E. 2nd Street into one contiguous parcel;

⁶ *An additional estimated 651 cubic yards of export related to soil remediation could occur. Final earthwork numbers may change based on soil conditions.*

- Coastal Development Permit;⁷ and
- Other discretionary and ministerial permits and approvals that may be deemed necessary, including but not limited to temporary street closure permits, grading permits, excavation permits, foundation permits, and building permits.

4. Areas of Controversy/Issues to be Resolved

Potential areas of controversy and issues to be resolved by the City's decision-makers may include those environmental issue areas where the potential for a significant unavoidable impact has been identified. These areas may include air quality and traffic during operation of the Project. Based on the Notice of Preparation (NOP) comment letters provided in Appendix A of the Draft EIR, as well as the Draft EIR comments included in Appendix FEIR-A of this Final EIR, issues known to be of concern to the community include aesthetics, air quality, biological resources, historical resources, land use, traffic, and energy demand.

5. Public Review Process

In accordance with CEQA, the environmental review process for the Project commenced with solicitation of comments from identified responsible and trustee agencies, as well as interested parties, regarding the scope of the Draft EIR, through a NOP process. The City prepared an Initial Study and circulated the NOP for public comment to the State Clearinghouse, Office Planning and Research, responsible agencies, and other interested parties on November 17, 2016. The review period ended on January 9, 2017. The Initial Study, NOP, and NOP comment letters are included in Appendix A to the Draft EIR.

Consistent with the requirements of CEQA Guidelines Sections 15087 and 15105, the Draft EIR was submitted to the State Clearinghouse, Office of Planning and Research, and circulated for a 45-day public comment period commencing on April 21, 2017, and ending on June 5, 2017. Following the Draft EIR public comment period, this Final EIR has been prepared and includes responses to the comments raised regarding the Draft EIR.

⁷ Pursuant to Long Beach Municipal Code Section 21.25.902, "The coastal zone boundaries are indicated on the official zoning map." The City's Coastal Zone Map shows that the Project Site falls within the "City Approved Jurisdiction," which gives the Planning Commission initial review authority and the City Council jurisdiction over any appeal.

6. Summary of Alternatives

The Draft EIR examined three alternatives to the Project in detail, which include Alternative 1: No Project/Reoccupation of Existing Hotel Alternative; Alternative 2: Reduced Density Alternative; and Alternative 3: Mixed-Use—Commercial and Hotel Alternative. A general description of these Alternatives is provided below. Refer to Section V, Alternatives, of the Draft EIR for a more detailed description of these alternatives and a comparative analysis of the impacts of these alternatives with those of the Project.

Alternative 1: No Project/Reoccupation of Existing Hotel Alternative

In accordance with the CEQA Guidelines, the No Project Alternative for a development project on an identifiable property consists of the circumstance under which the project does not proceed. CEQA Guidelines Section 15126.6(e)(3)(B) states “in certain instances, the No Project Alternative means ‘no build’ wherein the existing environmental setting is maintained.” However, CEQA Guidelines Section 15126.6(e)(3)(B) also indicates the No Project Alternative may discuss “predictable actions by others, such as the proposal of some other project” if disapproval of the project under consideration were to occur. CEQA Guidelines Section 15126.6(e)(3)(C) further states that the No Project Alternative should reflect “what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.”

Based on this guidance, Alternative 1, the No Project/Reoccupation of Existing Hotel Alternative, assumes the Project would not be approved and the existing hotel and associated on-site improvements would remain. However, it is noted that while existing conditions for the purposes of this EIR are based on the conditions that existed on-site at the time the NOP was publicly circulated (i.e., November 2016), in accordance with CEQA Guidelines Section 15125(a), at which time the SeaPort Marina Hotel and associated commercial uses within the hotel were operating, those uses subsequently ceased operations, and all buildings on-site are currently vacant. Accordingly, Alternative 1, the No Project/Reoccupation of Existing Hotel Alternative, would involve the reoccupation of the hotel and associated commercial uses, which would necessarily involve improvements to bring the existing structures up to current LBMC standards. It is also assumed that interior renovations may occur as well in order to appeal to a new customer base, along with limited landscape improvements. Furthermore, while only 170 of the SeaPort Marina Hotel’s 248 rooms were operating in November 2016, it can be assumed that any new hotel operator would strive for full occupancy, particularly given the need for capital improvements in order to recommence operations.

The site plan under this Alternative would resemble existing conditions, as illustrated in Figure II-3 in Section II, Project Description, of the Draft EIR. Amenities and commercial uses within the hotel are expected to be similar to those that previously existed (e.g., rental car/limousine service, fitness studio, and restaurant/café uses). In addition, the hotel would host occasional banquets and meetings, as previously occurred on-site.

Alternative 2: Reduced Density Alternative

Alternative 2, the Reduced Density Alternative, would include the development of a similar mix of land uses as the Project, including commercial, retail, and restaurant uses, but reduced in development intensity. More specifically, Alternative 2 represents a 30-percent reduction in the Project's total development and would consist of approximately 170,000 square feet of new floor area, resulting in approximately 124,100 square feet of retail uses, 27,200 square feet of quality restaurant uses, and 18,700 square feet of high-turnover restaurant uses at the Project Site. The reduction in square footage would be achieved by replacing one of the Project buildings along PCH with a surface parking lot, as shown in Figure V-1 in Section V, Alternatives, of the Draft EIR. Under Alternative 2, the height of the proposed buildings would be the same as under the Project (i.e., one- and two-story buildings ranging in height from a maximum of 30 feet to 35 feet).⁸ Parking for Alternative 2 would be provided within a surface parking area, a two-level parking structure, and a three-level parking structure.

Other design elements associated with Alternative 2, including the architectural, lighting, signage, and landscape features, would be similar to those of the Project. Alternative 2 would be designed in a contemporary architectural style with elements conjuring images of water and the coast and would integrate various architectural and pedestrian elements throughout the buildings to create a community destination. In particular, landscaped pedestrian pathways would be provided around the site perimeter, and landscaped pedestrian-oriented open space areas such as a plaza and paseos would be provided within the site interior. Alternative 2 also would incorporate sustainability features to comply with the City of Long Beach Green Building Ordinance (Ordinance No. ORD-09-0013) and the sustainability intent of the U.S. Green Building Council's LEED[®] program at the Certified level (or equivalent). The internal access and circulation scheme for Alternative 2 would be similar to that of the Project. Pursuant LBMC Chapter 21.41,

⁸ *The buildings would have sloped roofs, with a maximum midpoint height of 35 feet. Per Long Beach Municipal Code Section 21.15.1330, the height of a building with a sloped roof is the vertical distance above grade, as defined in Section 21.15.1190, to the midpoint height of the highest sloped roof. While some architectural elements housing elevators and mechanical equipment may have higher roof heights, these features are not included in the measurement of height for commercial buildings per Long Beach Municipal Code Section 21.15.1330.E.*

Alternative 2 would be required to provide a minimum of 852 parking spaces, with a total of approximately 855 spaces provided in the three parking areas.

As with the Project, Alternative 2 would require demolition of the existing SeaPort Marina Hotel and associated on-site uses, with a similar amount of grading and soil export. The overall duration of construction would be incrementally reduced compared to the Project due to the reduction in building construction. However, construction activities during maximum activity days would be similar in scale to those of the Project.

Alternative 3: Mixed-Use Commercial and Hotel

Alternative 3, the Mixed-Use—Commercial and Hotel Alternative would include a mix of land uses consisting of commercial, retail, restaurant, and hotel uses. Alternative 3 would include the development of a 100-room hotel and 120,000 square feet of commercial use consisting of 87,600 square feet of retail, 19,200 square feet of quality restaurant uses, and 13,200 square feet of high-turnover restaurant uses. As shown in Figure V-2 in Section V, Alternatives, of the Draft EIR, development under Alternative 3 would be arranged in a similar configuration as the Project, with the hotel located along Marina Drive. Similar to the Project, the proposed buildings would have a maximum height of 30 to 35 feet.⁹ Parking for Alternative 3 would be provided within a two-level parking structure in the northern portion of the Project Site and a three-level parking structure in the southern portion, both of which would include parking decks above the proposed retail uses.

Other design elements associated with Alternative 3, including the architectural, lighting, signage, and landscape features, would be generally similar to those of the Project. Alternative 3 would be designed in a contemporary architectural style with elements conjuring images of water and the coast and would integrate various architectural and pedestrian elements throughout the buildings to create a community destination. While landscaped pedestrian pathways would be provided around the site perimeter, similar to the Project, and a landscaped paseo would be provided between the southwestern retail building and the hotel, the Project's central plaza would not be included. However, open space areas and recreational uses associated with the hotel would consist of a swimming pool and likely a fitness center. Like the Project, Alternative 3 would incorporate sustainability features to comply with the City of Long Beach Green Building

⁹ *The buildings could have sloped roofs, with a maximum midpoint height of 35 feet. Per Long Beach Municipal Code Section 21.15.1330, the height of a building with a sloped roof is the vertical distance above grade, as defined in Section 21.15.1190, to the midpoint height of the highest sloped roof. While some architectural elements housing elevators and mechanical equipment may have higher roof heights, these features are not included in the measurement of height for commercial buildings per Long Beach Municipal Code Section 21.15.1330.E.*

Ordinance (Ordinance No. ORD-09-0013) and the sustainability intent of the U.S. Green Building Council's LEED® program at the Certified level (or equivalent). The internal access and circulation scheme for Alternative 3 would be similar to that of the Project, although the interior drive aisle ("Main Street") would be modified to accommodate the hotel's drop-off/pick-up area. Pursuant to LBMC Chapter 21.41, Alternative 3 would be required to provide a minimum of 952 parking spaces, although the site plan accommodates only 700 spaces.

As with the Project, Alternative 3 would require demolition of the existing SeaPort Marina Hotel and associated commercial uses, parking areas, and landscaping, and a similar amount of grading and soil export is expected. The overall duration of construction would be similar compared to the Project regardless of the change in uses, and the level of activity on maximum construction activity days would be similar in scale to that of the Project.

7. Summary of Environmental Impacts and Mitigation Measures

Table I-1 on page I-13 provides a summary of the environmental impact conclusions for each of the impacts evaluated for the Project. These impacts are summarized as follows:

**Table I-1
Summary of Environmental Impacts of the Project**

Environmental Issue	Project Impact
A. AESTHETICS/VISUAL QUALITY, VIEWS, LIGHT, GLARE, AND SHADING	
Construction—Aesthetics/Visual Character	Less Than Significant
Construction—Views	Less Than Significant
Construction—Light/Glare	Less Than Significant
Operational—Aesthetics/Visual Character	Less Than Significant
Operational—Views	Less Than Significant
Operational—Light/Glare	Less Than Significant
B. AIR QUALITY	
Construction—Regional Impacts	Less Than Significant
Construction—Localized Impacts	Less Than Significant
Construction—Toxic Air Contaminants	Less Than Significant
Construction—Odors	Less Than Significant
Operational—Regional Impacts	Significant and Unavoidable
Operational—Localized Impacts	Less Than Significant
Operational—CO “Hotspots”	Less Than Significant
Operational—Toxic Air Contaminants	Less Than Significant
Operational—Odors	Less Than Significant
C. CULTURAL RESOURCES	
Historic Resources	Less Than Significant
Archaeological Resources	Less Than Significant with Mitigation
Paleontological Resources	Less Than Significant with Mitigation
Tribal Cultural Resources	Less Than Significant with Mitigation
D. GEOLOGY AND SOILS	
Seismic Ground Shaking	Less Than Significant
Liquefaction	Less Than Significant with Mitigation
Settlement	Less Than Significant with Mitigation
Lateral Spreading	Less Than Significant
Subsidence	Less Than Significant
Expansive Soils	Less Than Significant
E. GREENHOUSE GAS EMISSIONS	
Greenhouse Gas Emissions	Less Than Significant
F. HAZARDS AND HAZARDOUS MATERIALS	
Construction—Hazardous Materials Use and Storage	Less Than Significant

Table I-1 (Continued)
Summary of Environmental Impacts of the Project

Environmental Issue	Project Impact
Construction—Hazardous Waste Generation, Handling, and Disposal	Less Than Significant
Construction—Underground and Aboveground Storage Tanks	Less Than Significant
Construction—Contaminated Soil	Less Than Significant with Mitigation
Construction—Asbestos/Lead-Based Paint	Less Than Significant with Mitigation
Construction—Polychlorinated Biphenyls	Less Than Significant
Construction—Abandoned Oil Wells/Methane Gas	Less Than Significant with Mitigation
Operation—Hazardous Materials Use and Storage	Less Than Significant
Operation—Hazardous Waste Generation, Handling, and Disposal	Less Than Significant
Operation—Underground and Aboveground Storage Tanks	Less Than Significant
Operation—Contaminated Soil	Less Than Significant with Mitigation
Operation—Asbestos/Lead-Based Paint/ Polychlorinated Biphenyls	Less Than Significant
Operation—Abandoned Oil Wells and Methane Gas	Less Than Significant
G. HYDROLOGY AND WATER QUALITY	
Construction—Surface Water Hydrology	Less Than Significant
Construction—Surface Water Quality	Less Than Significant
Construction—Groundwater Hydrology	Less Than Significant
Construction—Groundwater Quality	Less Than Significant
Operation—Surface Water Hydrology	Less Than Significant
Operation—Surface Water Quality	Less Than Significant
Operation—Groundwater Hydrology	Less Than Significant
Operation—Groundwater Quality	Less Than Significant
Seiche and Tsunami Risk	Less Than Significant
H. LAND USE	
Land Use Consistency	Less Than Significant
Land Use Compatibility	Less Than Significant
I. NOISE	
Construction Noise—On-Site	Less Than Significant with Mitigation
Construction Noise—Off-Site	Less Than Significant
Construction Vibration—Building Damage/Human Annoyance	Less Than Significant
Operational Noise—On-Site	Less Than Significant
Operational Noise—Off-Site	Less Than Significant

Table I-1 (Continued)
Summary of Environmental Impacts of the Project

Environmental Issue	Project Impact
J. PUBLIC SERVICES	
Fire Protection—Construction	Less Than Significant
Fire Protection—Operation	Less Than Significant
Police Protection—Construction	Less Than Significant
Police Protection—Operation	Less Than Significant
K. TRAFFIC AND ACCESS	
Construction—Intersection Capacity	Significant and Unavoidable
Construction—Access and Safety	Less Than Significant with Mitigation
Construction—Public Transit	Less Than Significant with Mitigation
Operational—Intersection Capacity	Significant and Unavoidable
Operational—CMP Segment	Significant and Unavoidable
Operational—Public Transit	Less Than Significant
Operational—Site Access and Circulation	Less Than Significant
Operational—Public Transit	Less Than Significant
Operational—Intersection Capacity (Caltrans)	Significant and Unavoidable
Operational—Freeway Segments (Caltrans)	Significant and Unavoidable
Operational—Freeway Ramps (Caltrans)	Significant and Unavoidable
L. Utilities and Service Systems	
Construction—Water Supply	Less Than Significant
Operational—Water Supply	Less Than Significant
Operational—Water Infrastructure	Less Than Significant
Construction—Energy	Less Than Significant
Operation—Energy	Less Than Significant
Energy—Regulatory Consistency	Less Than Significant
<i>Source: Eystone Environmental, 2017.</i>	

A. Aesthetics, Views, and Light/Glare

a. Analysis of Project Impacts

(1) Construction Impacts

(a) Aesthetics

Construction activities can disrupt the general aesthetic character of an area, and although temporary in nature, may cause a visually unappealing quality. During the Project's construction phase, the visual appearance of the Project Site would be altered due to the demolition of existing structures and surface parking areas, site preparation, grading and limited excavation, building construction, and the installation of paving/concrete and landscaping. The staging of construction equipment and materials, which is anticipated to occur primarily on-site, also would temporarily alter the visual appearance of the Project Site. Project construction is anticipated to occur over a period of approximately 16 months.

Construction activities would be visible from adjacent land uses and pedestrians and motorists on PCH, 2nd Street, and Marina Drive. Views of the construction site would be limited by Project Design Feature A-1, which would require the installation of temporary construction fencing around the perimeter of the Project Site, thereby minimizing temporary visual impacts. In addition, Project Design Feature A-2 would ensure that no unauthorized materials are posted on any temporary construction barriers or temporary pedestrian walkways and that such barriers or walkways are maintained in a visually attractive manner.

Construction activities also would include truck trips to and from the Project Site for concrete and construction material deliveries and haul truck trips for excavated earth materials. The roadways surrounding the Project Site are major arteries that are intended to accommodate a wide range of vehicles, including construction and delivery trucks. Thus, while the addition of truck trips associated with construction of the Project would affect the visual quality of the area on a transitory, short-term basis, such traffic would not be out of character nor permanently degrade the visual quality of the area.

Overall, while affecting the visual character of the Project area on a temporary, short-term basis, Project construction would not substantially degrade or alter the long-term visual character or quality of the Project Site or its surroundings. Implementation of project design features would further ensure that the overall aesthetic character would not be substantively degraded. Therefore, aesthetic impacts during construction of the Project would be less than significant, and no mitigation measures are required.

(b) Views

As discussed above, construction activities on the Project Site would cause a disruption in the general aesthetic character of the area. The presence of construction equipment and materials associated with these activities could alter existing views of and across the Project Site. However, construction activities would be temporary, and any potential alterations to viewsheds in the area likewise would be temporary. Thus, construction of the Project would not affect views or have a substantial adverse affect on a scenic vista. No significant construction-related impacts to views would occur, and no mitigation measures are required.

(c) Light and Glare

(i) Light

Project construction could generate light spillover to off-site uses in the surrounding area. However, construction activities would generally occur during daylight hours, with construction-related lighting limited to evening hours during the winter season. Any nighttime construction lighting would be used for safety and security and, per Project Design Feature A-3, light sources associated with Project construction would be shielded and/or aimed so that no direct beam illumination is directed outside the Project Site boundary. Light associated with construction vehicle headlights would be similar to existing lighting sources (i.e., vehicles accessing the site) and would not result in increased lighting as compared to existing conditions. Therefore, Project construction would not create a new, permanent source of substantial light that would adversely affect nighttime views in the area. Construction-related light impacts to off-site uses would be less than significant, and no mitigation measures are required.

(ii) Glare

Daytime glare could potentially occur during construction activities if reflective construction materials are positioned in highly visible locations where the reflection of sunlight could occur. However, any glare would be highly transitory and short-term, given the movement of construction equipment and materials within the construction area and the temporary nature of construction activities. Furthermore, flat, shiny surfaces that could reflect sunlight or otherwise cause glare are typically not an element of construction activities. Therefore, Project construction would not create new sources of substantial glare that would adversely affect day or nighttime views in the area. Impacts associated with daytime glare resulting from construction activities would be less than significant, and no mitigation measures are required.

(2) Operation Impacts

(a) *Aesthetics*

The Project would result in a permanent change to the existing visual environment on the Project Site. As previously described, the architecture, design elements, and color scheme of the existing hotel are outdated, and the aging structures (which are not considered historic resources) have fallen into disrepair. With large expanses of asphalt surface parking and limited landscaping, the site lacks design cohesiveness and visual integration and is not an aesthetic asset to the area.

The Project would replace existing development with four one- and two-story buildings containing commercial uses, including retail uses, a grocery store, a health club, and restaurant uses, as well as two parking structures. The Project would include landscaped courtyards, open space areas, and pedestrian pathways. Ornamental landscaping would be provided throughout the Project Site and along the site perimeter.

The proposed development would improve the overall appearance of the Project Site by providing visually integrated structures and uses that are designed in an updated, contemporary architectural style with elements that would unify and enhance the overall aesthetic environment of the Project Site. Design elements would reflect images of the nearby water and coast, thereby also visually integrating the site with the surrounding area. As illustrated in the proposed building elevations included as Figure II-6 through Figure II-11 in Section II, Project Description, of the Draft EIR, the building façades would provide visual interest through building fenestration, the use of a variety of complementary surface materials and colors, and varying rooftop designs that would create horizontal and vertical articulation, provide visual interest, and reduce building scales. Building heights would range from approximately 30 feet to a maximum of 35 feet, which would be similar to the existing uses and in scale with the uses in the surrounding area. Furthermore, landscaped setbacks of 20 feet, as required by SEADIP, would be provided along all adjacent streets.

The proposed landscaping features would further add to the visual quality of the Project Site. Landscaped pedestrian walkways would be provided around the perimeter of the Project Site, which would improve the appearance along the surrounding roadways. In addition, landscaped pedestrian-oriented open space areas, including a plaza and paseos, would be provided within the interior of the Project Site. Landscaping would be introduced in the setbacks around the site perimeter. Landscape planters and hardscape features would be located throughout the upper level and within the retail and dining terraces. Additionally, landscape screening of the parking garage would be included.

The Project would result in an increase in the building density and parking on-site, resulting in a total of 245,000 square feet of gross floor area and 1,150 parking spaces. Despite these increases, the height and bulk of the Project would remain in scale with the surrounding uses and would be designed to enhance the pedestrian experience. Buildings would be arranged in a village format, with three buildings fronting PCH and one building fronting Marina Drive. Proposed architectural elements and the 20-foot landscaped setbacks along the adjacent roadways would serve to blend the structures and open space with the surrounding area. In addition, the village format would visually unify the block, as well as the area in general, providing a cohesive and interesting design that would serve as a focal point for the area. Identification signage along building façades would further promote the Project as a destination.

The removal of the existing surface parking areas and the placement of parking within structures likewise would enhance the Project Site's visual setting. In particular, the northern parking structure would be largely screened from view by retail-looking façades, with only the garage entrances indicating the presence of parking within. As such, vehicles would be screened from view within the structures. While this would represent a departure from surrounding development in the area, which is characterized by urban-style development with commercial uses surrounded by surface parking areas, it would result in an improvement to the overall aesthetic environment.

The segments of 2nd Street, PCH, and Marina Drive that border the Project Site were proposed as scenic routes pursuant to the Scenic Routes Element of the General Plan, and 2nd Street between Livingston Drive and PCH have since been designated as such.^{10,11} Further, the Project Site is located within a scenic corridor designated in the Scenic Routes Element.¹² Additionally, while there are no designated state scenic highways located on or in the vicinity of the Project Site, the segment of PCH adjacent to the Project Site is an eligible state scenic highway.¹³ Furthermore, the buildings would be designed to take advantage of the scenic setting by incorporating elements that visually unify the Project Site while providing an inviting and interesting façade that is in scale with the surrounding area. In addition, as mentioned above, the removal of the surface parking areas along the perimeter of the Project Site and the unmaintained vacant lot at the corner of 2nd Street and PCH would further improve the visual quality of these roadways. Thus,

¹⁰ *City of Long Beach, Scenic Routes Element (Scenic Highways), May 9, 1975, p. 58.*

¹¹ *Telephone conversation with Craig Chalifant, City of Long Beach, March 30, 2017.*

¹² *City of Long Beach, Scenic Routes Element (Scenic Highways), May 9, 1975, p. 58.*

¹³ *California Department of Transportation, California Scenic Highway Program, Scenic Highway Routes, www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/, accessed November 1, 2016.*

the Project would not damage scenic resources within a state scenic highway or within a scenic route as identified in the Scenic Routes Element of the General Plan.

Overall, the Project would not result in the removal or demolition of visual resources. Furthermore, the Project would not degrade the existing visual character or quality of the site or its surroundings. Rather, development of the Project would result in an overall aesthetic benefit to the Project Site and the surrounding area. As such, the Project would not result in significant impacts related to aesthetic resources, and no mitigation measures are required.

(b) Views

Views in the Project area predominately consist of low-rise commercial development. Long-range, expansive views in the area are limited due to the predominantly flat terrain and intervening development. The adjacent roadways (e.g., PCH, 2nd Street, and Marina Drive) provide scenic vistas along portions of these thoroughfares. For example, intermittent, street-level, long-range views of Alamitos Bay and the Pacific Ocean are available from certain vantage points along some east-west thoroughfares. Long-range views of the Santa Ana Mountains also are available from limited vantage points in the area but are mainly limited to roadways. As previously indicated, the segments of PCH, 2nd Street, and Marina Drive that border the Project Site were proposed as scenic routes pursuant to the Scenic Routes Element, and 2nd Street between Livingston Drive and PCH have since been designated as such. Additionally, the PCH segment is identified an eligible state scenic highway.

As previously discussed, development of the Project would include four one- and two-story structures situated along PCH and Marina Drive. Similar to existing conditions, these structures would not exceed a height of 35 feet, in conformance with SEADIP standards. Therefore, in general, the Project would not result in major changes to views in the area. However, the specific location of buildings and landscaping could alter some of the short-range views currently available. The Project's potential impacts on views in all directions are discussed below.

(i) North-Facing Views

There are currently no short- to mid-range northerly views across the Project Site, as such views from off-site vantage points located south of the Project Site are obstructed by the existing SeaPort Marina Hotel (on-site) and the Marina Shores Shopping Center to the immediate south. Long-range views from areas further south also are largely obstructed by the intervening urban development, and no scenic resources are currently visible from these vantage points.

The Project includes a parking structure in the southern portion of the Project Site, which would consist of three levels plus rooftop parking. As with the Project as a whole and similar to existing conditions, this structure would not exceed 35 feet in height. The southern parking structure would extend from the Marina Drive setback to the PCH setback and thus, would dominate short-range, north-facing views from areas adjacent to the site to the south. However, as there are no scenic vistas visible from vantage points to the immediate south, development of this structure would not obstruct any existing scenic vista or scenic resource. Furthermore, the Project would improve the overall aesthetic character of the site, thereby improving views across the Project Site. Long-range views from areas farther south, including in the City of Seal Beach, would not be obstructed by the Project, as the maximum heights would not increase compared to existing conditions. As the Project Site and its structures are not visible from areas to the south under existing conditions, the proposed Project likewise would not be visible.

The Project would include minimum setbacks of 20 feet along the adjacent roadways. As previously described, these areas would be heavily landscaped. Thus, with the enhanced setbacks, the Project would complement the north-facing views along Marina Drive and PCH.

Overall, due to the limited availability of north-facing views, the general lack of scenic resources in the area, the Project's low visibility from areas to the south, and the enhanced setbacks and landscaping on-site, the Project would not have a substantial adverse effect on north-facing scenic vistas.

(ii) South-Facing Views

Short and mid-range southerly views from areas north of the Project Site currently consist predominately of the existing SeaPort Marina Hotel. The vacant lot on the southwest corner of PCH and 2nd Street and the existing surface parking area in the eastern portion of the Project Site allow views across the site, but these views are limited to landscaping and low-rise urban development. There are no long-range scenic south-facing views of or across the Project Site.

The removal of the unmaintained vacant lot and existing surface parking would enhance the overall visual environment, including the southerly views along PCH and Marina Drive. As with the north-facing views, improved landscaped setbacks would enhance southerly views along these roadways. Additionally, the northern parking structure would be largely screened from view by retail-looking façades, with only the garage entrances indicating the presence of parking within, which would further enhance views along the adjacent roadways. Other on-site improvements and landscaping would also improve short- to mid-range southerly views. Long-range views of and across the

Project Site from areas farther north would not be affected, as the on-site structures would not exceed 35 feet and, thus, would not be visible from distant locations due to the relatively flat topography and intervening development. The Project Site is likely visible from south-facing upper floor windows at the Marina Pacifica residential development. However, as the Project would improve the overall visual quality of the Project Site and the maximum building heights would not increase, the Project would not obstruct long-range private views from this vantage point, and views of the Project Site would be improved.

Given the surrounding topography, intervening development, the lack of existing viewsheds or notable visual resources, and the improved on-site aesthetic conditions, the Project would not have an adverse effect on south-facing views.

(iii) East-Facing Views

As previously described, views of and across the Project Site from locations to the west on Marina Drive are largely obstructed by the on-site structures associated with the SeaPort Marina Hotel, with the exception of the middle driveway and at the southern end of the Project Site, where limited views eastward toward PCH and the Marketplace Shopping Center currently exist. Long-range east-facing views from areas farther to the west, along 2nd Street or from Naples Island, include the Haynes Generating Station and associated smoke stacks and limited distant views of the Santa Ana Mountains.

Short-range views of and across the Project Site from Marina Drive and Alamitos Bay Marina would be enhanced due to the unified design and improved aesthetic character of the Project Site. While the Project would consist of one- to two-story structures with a maximum height of 30 to 35 feet, similar to existing conditions, the façades along Marina Drive would be largely continuous, thereby eliminating any potential intermittent views through the Project Site. However, such views are not notable, as local view resources to the east, such as the El Cerrito Wetlands, are not visible due to intervening development. In addition, the driveways and paseos along Marina Drive would permit views into the site interior. Furthermore, easterly views along 2nd Street, adjacent to the Project Site, would be enhanced by the landscaped setbacks and general streetscape improvements included as part of the Project. Long-range easterly views from areas farther to the west also would not be affected, as the height of the proposed structures would be limited to 35 feet and would not obstruct intermittent long-range views of the Santa Ana Mountains.

Overall, due to the height of the proposed on-site structures, the improved aesthetic character of the site, the topography, and the absence of notable view corridors or scenic resources, east facing views would not be adversely affected by the Project.

(iv) West-Facing Views

Short-range westerly views from areas directly east of the Project Site are dominated by the existing SeaPort Marina Hotel and associated surface parking areas. The rows of tall palm trees that line Marina Drive on both sides of the street, as well as along the median, also are highly visible in the background. Long-range views of Alamitos Bay, Naples Island, and the Pacific Ocean from areas farther east are not generally available due to the flat terrain and intervening development and largely consist of the tops of palm trees and other landscaping.

As with views from other directions, short-range, west-facing views from PCH would be dominated by the proposed development. However, ocean views would be available from the upper level terraces included as part of the Project, thereby creating new view opportunities and enhancing the waterfront experience for visitors to the site. Furthermore, setbacks and landscaping along 2nd Street would enhance westerly views along this roadway. Long-range west-facing views would not be impacted by the Project as on-site building heights would not increase. Due to the proposed height of the Project, the addition of new view opportunities, and the enhanced aesthetic condition, west-facing views would not be adversely affected by the Project.

(v) Conclusion

Based on the analysis above, the Project would result in enhanced short- and mid-range views of and across the Project Site in all directions due to the improved aesthetic character of the Project Site and enhanced roadway setbacks and perimeter landscaping. The new ocean views provided from the Project's upper terraces along Marina Drive also would provide a benefit. Existing long-range views would not be affected by the Project as the height of on-site structures would not increase. Furthermore, due to the flat topography of the Project vicinity and intervening commercial development throughout the area, expansive views are limited. Therefore, the Project would not have a substantial adverse effect on a scenic vista. No significant impacts would occur, and no mitigation measures are required.

(c) Light and Glare

(i) Light

Project lighting would consist of exterior lighting on buildings for security and wayfinding purposes and entryway lighting within the parking structures and along driveways and roadways. Low-level lighting to accent architectural, signage, and landscaping elements also would be incorporated throughout the Project Site. Other light sources would include lighting from storefront window displays and interior lighting

emanating from windows and other glass surfaces. Per Project Design Feature A-4, all on-site street and pedestrian lighting would be shielded and directed away from off-site light-sensitive uses. Furthermore, in compliance with Title 24 energy efficiency standards and City of Long Beach lighting requirements, exterior lighting would be low-level, energy efficient, shielded, and directed onto the Project Site.

As discussed above, the existing SeaPort Marina Hotel currently emits light from architectural lighting on the buildings, parking lot lighting, and signage lighting. These existing sources of light are not designed or placed in a unified manner, and the existing surface parking area lights are unshielded. As such, the proposed shielded and directed on-site driveway, parking, and pedestrian lighting would limit spill-over onto off-site uses to a greater degree than the existing on-site parking lot lights.

Due to the increased density of development associated with the Project, the overall intensity of on-site lighting would increase. However, lighting on the Project Site would be consistent with the lighting in the general Project vicinity and would be appropriate in the context of the developed, urban environment. Furthermore, the proposed lighting would be concentrated on-site, with limited spill-over to surrounding uses. The proposed setbacks and landscaping along the site perimeter would further limit the amount of light that spills over to surrounding uses.

Headlights from vehicles accessing the Project Site would create additional sources of light during evening and nighttime hours. As illustrated in Figure II-4 in Section II, Project Description of the Draft EIR, two driveways would be located on PCH, three driveways would be located along Marina Drive, and one driveway would be located along 2nd Street. These driveways would provide vehicular access to the parking structures and the two-way drive aisle within the site interior referred to as "Main Street." While the number of vehicles accessing the Project Site would increase, the light generated from these vehicles would be consistent with that currently associated with vehicles accessing the existing hotel and would be typical for the vehicle-oriented Project area; as such, vehicle headlights would not be anticipated to result in a substantial adverse impact. Furthermore, all of the on-site parking would be provided in parking structures located at the northern and southern ends of the Project Site, as well as in a second-level parking deck located above the proposed single-story uses along PCH. There would be no surface parking areas, and the parking structures would be largely screened through the use of architectural elements and screen trees, which would limit the effects of headlights from parked vehicles. A proposed loading and service area would be located adjacent to 2nd Street to serve the proposed grocery store, and smaller loading areas would be located near the northern and southern parking structures to serve the nearby buildings. These loading areas are adjacent to highly active thoroughfares (i.e., PCH and 2nd Street) where

headlights from service and/or other vehicles are typical and would not create a new source of substantial light or glare.

Light-sensitive uses in the Project vicinity include boats docked at Alamitos Bay Marina, natural areas associated with the Los Cerritos Wetlands and the San Gabriel River, and the Marina Pacifica residential community. These uses are not immediately adjacent to the Project Site and, with the exception of Alamitos Bay Marina, intervening development between the Project Site and these receptors would block any direct light effects. Boats docked at the Marina are located a sufficient distance from the Project Site, with a parking lot and a number of existing structures located between the uses, to prevent any light spillover. Implementation of the project design features and compliance with City requirements would further ensure that light generated by the Project would not result in light spillover onto sensitive uses. In particular, the shielding and directing of on-site street and pedestrian lighting onto the intended surfaces in accordance with Project Design Feature A-4, would reduce the potential for skyglow. While on-site lighting would add to the ambient lighting in the area, it would not result in changes to the overall light environment at any nearby sensitive locations.

Overall, operation of the Project would not create a new source of substantial light that would adversely affect nighttime views in the area. Therefore, light impacts to off-site uses, including light-sensitive uses, during Project operation would be less than significant, and no mitigation measures are required.

(ii) Glare

The proposed on-site structures would consist of varying surfaces and materials, including wood, tile, metal panels, aluminum frames, plaster, and glass. Per Project Design Feature A-5, all exterior windows and glass used in building façades would be non-reflective or treated with a non-reflective coating to minimize glare. In addition, all glass used in building façades would be designed to meet California Building Code Title 24 requirements. Substantial landscaping would be placed around the periphery of the Project Site, further limiting the potential for glare to affect off-site uses, including drivers on adjacent roadways. In addition, landscaping and architectural elements would screen the proposed parking structures, thereby limiting glare from vehicles parked on-site. Furthermore, the removal of 457 surface parking spaces would reduce the glare potential on-site. Based on the above, Project operation would not create new sources of substantial glare that would adversely affect day or nighttime views in the area. Therefore, impacts associated with daytime glare resulting from the Project would be less than significant, and no mitigation measures are required.

(d) Consistency with Regulatory Framework

As discussed in more detail in Section IV.H, Land Use, of the Draft EIR, the Project would be consistent with the applicable land use policies, plans, and regulations regarding aesthetics and visual resources, as outlined in the City of Long Beach General Plan, including the Land Use Element, the Scenic Routes Element, and the Local Coastal Program; the SEADIP; and the LBMC. The Project's consistency with these regulations is discussed below.

(i) City of Long Beach General Plan

Land Use Element

The Project would include a variety of commercial uses along the major traffic arteries of PCH and 2nd Street, consistent with the land use designation for the Project Site. The proposed commercial uses would be provided in four structures which, consistent with the SEADIP, would have a maximum building height of 35 feet. Therefore, the Project would support the City's goals and policies regarding neighborhood emphasis, building heights, and specific land use guidelines within the Land Use Element. The Project also would promote the City's goals and policies to improve the appearance of arterial corridors as the Project would provide 20-foot heavily landscaped setbacks along the adjacent roadways, as well as landscaped walkways and pedestrian-oriented open space areas. Furthermore, the northern parking structure would be largely screened from view by retail-looking façades, with only the garage entrances indicating the presence of parking within. Thus, the Project would be consistent with the relevant aesthetics-related goals and policies of the Land Use Element of the General Plan.

Scenic Routes Element

The General Plan Scenic Routes Element identifies the segments of 2nd Street, PCH, and Marina Drive that border the Project Site as proposed scenic routes, and 2nd Street between Livingston Drive and PCH have since been designated as such. As described above, the Project would enhance the appearance of these street segments by providing extensively landscaped setbacks. In addition, the various project design elements, including building fenestration, varied surface materials and colors, and varying rooftop designs, would further enhance the visual environment along the adjacent roadways. The Project would replace the existing unmaintained vacant lot on the corner of 2nd Street and PCH and remove the surface parking areas around the perimeter of the Project Site, which would also improve the visual quality along these roadways. Consistent with the goals and policies set forth in the Scenic Routes Element, the Project would enhance man-made aesthetic resources within and visible from the scenic corridor. In addition, the Project would serve to strengthen the City's image by creating a visible and welcoming gateway to the southeastern portion of City that would provide a community

destination. As such, the Project would be consistent with the applicable aesthetics-related policies set forth in the Scenic Routes Element.

Local Coastal Program

The Local Coastal Program (LCP) requires that development of the subject area must be comprehensive and integrated, with a balance sought between the issues of land use, density, traffic, environmental issues, and physical impacts. The Project would be developed in accordance with land use and zoning design guidelines set forth in the SEADIP and includes uses that would complement and be compatible with the surrounding uses. The Project would have a total floor area ratio (FAR) of approximately 0.49:1 and would be consistent with the land use and zoning requirements set forth in the SEADIP. Furthermore, as analyzed herein, the Project would be designed in a contemporary architectural style with elements that would visually integrate the uses and buildings within the Project Site while complementing the uses in the surrounding area. This would include the incorporation of elements that would conjure images of water and the coast. Therefore, the Project would be consistent with applicable aesthetics-related goals and policies of the LCP.

SEADIP

As previously discussed, the Project Site is located within the boundaries of the SEADIP within the PD-1 overlay. PD-1 is a zoning overlay that allows a compatible mix of land uses, planned commercial areas and business parks, and a variety of residential types. The Project Site is located within SEADIP Subarea 17, which is designated for commercial uses. With the exception of the general development provisions applicable to the entire SEADIP area, the SEADIP does not include specific development and use standards for Subarea 17.

The Project would provide a mix of uses including retail, a grocery store, restaurants, and a health club, which would be consistent with the commercial uses envisioned for Subarea 17. In addition, as described above, the proposed uses would complement and be consistent with the existing commercial uses in the surrounding area. The Project would be designed in a contemporary architectural style with elements conjuring images of water and the coast. The new structures would include building fenestration, a variety of surface materials and colors, and varying rooftop designs to create horizontal and vertical articulation, provide visual interest, and reduce building scales. The proposed building design, landscaping elements such as pedestrian walkways within and along the perimeter of the Project Site, and open space and other gathering areas throughout the Project Site would create visual harmony and foster community identity within the Project Site and the surrounding area, consistent with SEADIP provisions. The Project would not block public views to water areas or public open spaces.

Existing views of the Marina and associated coastal areas across the Project Site are currently very limited due to the flat topography and intervening urban development. As the maximum height of on-site buildings would not increase, existing views generally would be maintained. Furthermore, the upper level terraces included as part of the Project would provide new public views of the Marina, Alamitos Bay, and Naples Island beyond, further advancing SEADIP provisions.

The Project would provide approximately 3.37 acres of usable open space, or 31.3 percent of the total Project area, which would exceed the 30 percent open space requirement of the SEADIP. In addition, the Project would provide minimum setbacks of 20 feet around the site perimeter and would include landscaped pedestrian walkways and open space, consistent with SEADIP requirements regarding setbacks and landscaping. In particular, the SEADIP requires the provision of a landscaped parkway along all development fronting PCH, which the Project would provide. The proposed structures would range in height from a maximum of 30 to 35 feet, which would be within the 35-foot maximum height for non-residential uses required by SEADIP. Thus, the Project would be consistent with the applicable aesthetics-related design requirements of the SEADIP.

City of Long Beach Municipal Code

Section 21.37 of the LBMC establishes Planned Development Districts, which allow for more flexible development plans than permitted under conventional zoning district regulations. Therefore, consistency with the LBMC is based on the Project's consistency with the general development and use standards of the SEADIP. Accordingly, consistency with the LBMC is analyzed as part of the SEADIP analysis provided above. As discussed therein, the Project would be consistent with the applicable aesthetic-related development standards set forth in the SEADIP, and thus, the LBMC.

b. Cumulative Impacts

Section III, Environmental Setting, of the Draft EIR, identifies six related projects in the general vicinity of the Project Site. Most of the related projects are located a mile or more from the Project Site, and none are sufficiently close to the site so as to substantially affect the same viewshed as the Project. The nearest two proposed developments are Related Project No. 3, located on Naples Island and consisting of retail uses, and Related Project No. 4, located within the El Cerrito Wetlands to the southeast and involving office and storage/warehouse uses, new oil wells, and a wetlands mitigation bank with a public access trail. The other related projects include residential, mixed-use, and recreational uses, as well as an energy storage facility, and would occur primarily as urban in-fill within the existing urban land use pattern of the area.

The Project and related projects would cumulatively introduce new aesthetic elements to the Project area. However, it is expected that the related projects would be developed within the scale and character of the existing visual environment. Furthermore, similar to the Project, the related projects would be subject to discretionary review by the City of Long Beach or the City of Seal Beach to ensure consistency with adopted policies and standards that address aesthetics (e.g., height limits, density limits, setback requirements). As it was determined herein that the Project would not have a significant aesthetic impact, and due to the distance separating the related projects, it is not anticipated that future development, inclusive of the Project and related projects, would substantially degrade the existing visual character or quality of the Project area. Cumulative aesthetics impacts from development of the Project and the related projects would be less than significant, and the Project's contribution to aesthetics impacts would not be cumulatively considerable.

With respect to view obstruction, the related projects are located at sufficient distances so as not to cumulatively impact views in any specific area. Furthermore, similar to the Project, the related projects are primarily urban in-fill developments that would be subject to height limitations as enforced by the Cities of Long Beach or Seal Beach. Cumulative view impacts from development of the Project and the related projects would be less than significant, and the Project's contribution to aesthetics impacts would not be cumulatively considerable.

Development of the Project, as well as the related projects in the area, would introduce new or expanded sources of artificial light. However, due to the fact that the related projects are spread out over a relatively large geographic area, the combination of these projects would not result in a significant increase in ambient light levels in the Project area.

Similarly with regard to glare, the uses proposed under the Project and the related projects are consistent and compatible with other development in the area and common for a vehicle-oriented urban environment. As with the Project, the related projects would be subject to discretionary review to ensure that significant sources of light and glare are not introduced. Additionally, as with the Project, it is anticipated that related projects would include standard design features related to the use of low-level lighting and shielding, as well as non-reflective surfaces to minimize the potential for glare. Cumulative light and glare impacts from development of the Project and the related projects would be less than significant, and the Project's contribution to aesthetics impacts would not be cumulatively considerable.

c. Project Design Features

The following project design features are proposed with regard to aesthetics, views, and light and glare.

Project Design Feature A-1: Temporary construction fencing shall be placed around the perimeter of the Project Site to screen construction activity from view at street level.

Project Design Feature A-2: The Applicant shall ensure through appropriate postings and daily visual inspections that no unauthorized materials are posted on any temporary construction barriers or temporary pedestrian walkways that are accessible/visible to the public and that such temporary barriers and walkways are maintained in a visually attractive manner throughout the construction period.

Project Design Feature A-3: Light sources associated with Project construction shall be shielded and/or aimed so that no direct beam illumination is provided outside of the Project Site boundary.

Project Design Feature A-4: All new street and pedestrian lighting required for the Project shall be shielded and directed away from any off-site light-sensitive uses.

Project Design Feature A-5: All exterior windows and glass used on building surfaces shall be non-reflective or treated with a non-reflective coating.

d. Mitigation Measures

As evaluated above, impacts related to aesthetics, views, and light and glare would be less than significant. As such, no mitigation measures are required.

e. Level of Significance After Mitigation

As indicated above, no mitigation measures are required for the Project. Based on the Project's design and with the incorporation of project design features, Project-level impacts with regard to aesthetics, views, and light and glare would be less than significant. Cumulative impacts likewise would be less than significant.

B. Air Quality

a. Analysis of Project Impacts

(1) Construction

(a) Regional Construction Impacts

As described in Section II, Project Description, of the Draft EIR, Project construction would commence with demolition of the existing hotel and associated amenities and surface parking areas, followed by grading and limited excavation for the placement of building footings. Building foundations would then be laid, followed by building construction, paving/concrete installation, and landscape installation. Project construction is anticipated to occur over approximately 16 months with anticipated completion in 2019. Grading of the Project Site would require approximately 1,545 cubic yards of soil export.

Construction of the Project has the potential to create air quality impacts through the use of heavy-duty construction equipment and through vehicle trips generated from construction workers traveling to and from the Project Site. In addition, fugitive dust emissions would result from demolition and construction activities. Mobile source emissions, primarily nitrogen oxides (NO_x), would result from the use of construction equipment, such as dozers, loaders, and cranes. During the finishing phase of a building, paving operations and the application of architectural coatings (e.g., paints) and other building materials would potentially release volatile organic compounds (VOCs). The assessment of construction air quality impacts considers each of these potential sources. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and, for dust, the prevailing weather conditions.

The emissions levels in Table IV.B-4, as updated in Section II, Corrections and Additions, of this Final EIR, represent the highest daily emissions projected to occur during each year of construction. As presented in Table IV.B-4, construction-related daily maximum regional construction emissions (i.e., combined on-site and off-site emissions) would not exceed any of the South Coast Air Quality Management District (SCAQMD) daily significance thresholds. Therefore, regional construction emissions resulting from the Project would result in a less than significant air quality impact.

(b) Localized Impacts from On-Site Construction Activities

The localized construction air quality analysis was conducted using the methodology promulgated by the SCAQMD. Look-up tables provided by the SCAQMD were used to

determine localized construction emissions thresholds for the Project.¹⁴ Localized significance thresholds (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 standard and are based on the most recent background ambient air quality monitoring data (2013–2015) for the Project area, presented in Table IV.B-2 in Section IV.B, Air Quality, of the Draft EIR. Although the trend shown therein demonstrates that ambient air quality is improving in the area, the localized construction emissions analysis conservatively did not apply a reduction in background pollutant concentrations for subsequent years, during which construction would occur (i.e., 2017–2019). By doing so, the allowable pollutant increment to not exceed an ambient air quality standard is more stringent. The analysis is based on existing background ambient air quality monitoring data (2013–2015).

Maximum on-site daily construction emissions for NO_x, carbon monoxide (CO), particulate matter (PM₁₀), and fine particulate matter (PM_{2.5}) were calculated using CalEEMod and compared to the applicable SCAQMD LSTs for source receptor area (SRA) 4 based on a construction site acreage of 5 acres. The 5-acre LST look-up values can be used for projects that exceed 5 acres as a screening tool to determine which pollutants require detailed analysis. This approach is conservative as it assumes that all on-site emissions would occur within a 5-acre area and would over predict potential localized impacts (i.e., more pollutant emissions occurring within a smaller area and within closer proximity to potential sensitive receptors). Potential impacts were evaluated at the closest sensitive receptors which are the multi-family residential buildings located within Marina Pacifica approximately 150 meters northwest of the Project Site.

The maximum daily localized emissions from Project construction and LSTs are presented in Table IV.B-5 in Section IV.B, Air Quality, of the Draft EIR. As presented therein, maximum localized construction emissions for off-site sensitive receptors would not exceed SCAQMD-recommended localized screening thresholds. Therefore, localized construction emissions resulting from the Project would result in a less than significant impact.

(c) Toxic Air Contaminants

The greatest potential for toxic air contaminant (TAC) emissions during construction would be from diesel particulate emissions associated with heavy equipment operations during grading and excavation activities. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of individual cancer risk.

¹⁴ SCAQMD, *LST Methodology Appendix C-Mass Rate LST Look-up Table*, revised October 2009.

“Individual Cancer Risk” is the likelihood that a person exposed to concentrations of TACs over a 70 year lifetime will contract cancer based on the use of standard risk-assessment methodology. Because the construction schedule estimates that the phases which require the most heavy-duty diesel vehicle usage, such as site grading/excavation, would last for a much shorter duration (e.g., approximately five months), construction of the Project would not result in a substantial, long-term (i.e., 70-year) source of TAC emissions. Additionally, the SCAQMD CEQA guidance does not require a health risk assessment (HRA) for short-term construction emissions. It is, therefore, not necessary to evaluate long-term cancer impacts from construction activities which occur over a relatively short duration. In addition, there would be no residual emissions or corresponding individual cancer risk after construction. As such, Project-related TAC impacts during construction would be less than significant.

(2) Operation

(a) Regional Operational Impacts

As discussed above, SCAQMD’s CalEEMod was used to calculate regional area, energy, mobile source, and stationary emissions. The Project would incorporate project design features to support and promote environmental sustainability, as discussed under Section IV.E, Greenhouse Gas Emissions, of the Draft EIR. While these features are designed primarily to reduce greenhouse gas emissions, they would also serve to reduce criteria air pollutants discussed herein. Project design features incorporated in this analysis include the Project Site’s accessibility to job centers (including on-site development), an increase in the diversity of land uses and development density, and the provision of on-site pedestrian improvements. These project design features are discussed further in Section IV.E, Greenhouse Gas Emissions.

As shown in Table IV.B-6, as updated in Section II, Corrections and Additions, of this Final EIR, regional emissions resulting from operation of the Project would exceed the SCAQMD daily threshold for NO_x. Therefore, the Project’s regional operational emissions would result in a significant impact. This impact would remain significant even with the incorporation of additional project design features and mitigation determined to be feasible (refer to Section IV, Mitigation Monitoring and Reporting Program, of this Final EIR).

(b) Localized Impacts from On-Site Operational Activities

Operation of the Project would not introduce any major new sources of air pollution within the Project Site. Emissions estimates for criteria air pollutants from on-site sources are presented in Table IV.B-7 in Section IV.B, Air Quality, of the Draft EIR. The SCAQMD LST mass rate look-up tables were used to evaluate potential localized impacts. As shown

in Table IV.B-7, on site operational emissions would not exceed any of the LSTs. Accordingly, localized operational impacts would be less than significant.

(c) *CO “Hot Spots” Analysis*

Consistent with the CO methodology above, if a project intersection does not exceed 400,000 vehicles per day, then the project does not need to prepare a detailed CO hot spot analysis.

At buildout of the Project, the highest average daily trips at an intersection would be approximately 89,290 at the PCH and 2nd Street intersection,¹⁵ which is significantly below the daily traffic volumes that would be expected to generate CO exceedances as evaluated in the 2003 AQMP. This daily trip estimate is based on the peak-hour conditions of the intersection. There is no reason unique to the Air Basin meteorology to conclude that the CO concentrations at the PCH and 2nd Street intersection would exceed the 1-hour CO standard if modeled in detail, based on the studies undertaken for the 2003 AQMP. Therefore, the Project does not trigger the need for a detailed CO hotspots model and would not cause any new or exacerbate any existing CO hotspots. As a result, impacts related to localized mobile-source CO emissions are considered less than significant.

(d) *Toxic Air Contaminants*

When considering potential air quality impacts under CEQA, consideration is given to the location of sensitive receptors within close proximity of land uses that emit TACs. The California Air Resources Board CARB has published and adopted the *Air Quality and Land Use Handbook: A Community Health Perspective*, which provides recommendations regarding the siting of new sensitive land uses near potential sources of air toxic emissions (e.g., freeways, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline dispensing facilities).¹⁶ The SCAQMD adopted similar recommendations in its *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*.¹⁷ Together, the CARB and SCAQMD guidelines recommend siting distances for both the development of sensitive land uses in proximity to TAC sources and the addition of new TAC sources in proximity to existing sensitive land uses.

¹⁵ *Linscott, Law & Greenspan, February 2017.*

¹⁶ *CARB, Air Quality and Land Use Handbook, a Community Health Perspective, April 2005.*

¹⁷ *SCAQMD, Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning, May 6, 2005.*

The primary sources of potential air toxics associated with Project operations include diesel particulate matter (DPM) from delivery trucks associated with the Project's commercial component (e.g., truck traffic on local streets and idling on adjacent streets). However, these activities, and the land uses associated with the Project, are not considered land uses that generate substantial TAC emissions. It should be noted that the SCAQMD recommends that HRAs be conducted for substantial sources of DPM (e.g., truck stops and warehouse distribution facilities that generate more than 100 trucks per day or more than 40 trucks with operating transport refrigeration units) and has provided guidance for analyzing mobile source diesel emissions.¹⁸ Based on this guidance, the Project is not considered to be a substantial source of diesel particulate matter warranting a refined HRA since daily truck trips to the Project Site would not exceed 100 trucks per day or more than 40 trucks with operating transport refrigeration units. In addition, the CARB-mandated airborne toxic control measures (ATCM) limits diesel-fueled commercial vehicles (delivery trucks) to idle for no more than five minutes at any given time, which would further limit diesel particulate emissions.

The Project would require the installation of a back-up diesel-powered emergency generator. Any new generator would be required to comply with all applicable rules and regulations including Best Available Control Technology (BACT), which would require the generator to be equipped with a diesel particulate filter. Consistent with SCAQMD Rule 1470, Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines, the emergency generator would be limited to operate no more than 200 hours a year and only in the event of an emergency power failure or for routine testing and maintenance. Compliance with these rules and regulations would ensure that potential health risk impacts related to the emergency generator would be less than significant.

As the Project would not contain substantial TAC sources and is consistent with the CARB and SCAQMD guidelines, the Project would not result in the exposure of off-site sensitive receptors to carcinogenic or toxic air contaminants that exceed the maximum incremental cancer risk of 10 in one million or an acute or chronic hazard index of 1.0, and potential TAC impacts would be less than significant.

Typical sources of acutely and chronically hazardous TACs include industrial manufacturing processes (e.g., chrome plating, electrical manufacturing, petroleum refinery). The Project would not include these types of potential industrial manufacturing process sources. It is expected that quantities of hazardous TACs generated on-site (e.g.,

¹⁸ SCAQMD, *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*, 2002.

cleaning solvents, paints, landscape pesticides, etc) for the types of proposed land uses would be below thresholds warranting further study under California Accidental Release Program (CalARP). As such, the Project would not release substantial amounts of TACs, and impacts on human health would be less than significant.

(3) SCAQMD CEQA Air Quality Handbook Policy Analysis

The following analysis addresses the Project's consistency with applicable SCAQMD and Southern California Association of Governments (SCAG) policies, inclusive of regulatory compliance and the project design features discussed above. In accordance with the procedures established in the SCAQMD's *CEQA Air Quality Handbook*, the following criteria are required to be addressed in order to determine the Project's consistency with applicable SCAQMD and SCAG policies:

- Would the project result in any of the following:
 - An increase in the frequency or severity of existing air quality violations; or
 - Cause or contribute to new air quality violations; or
 - Delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.
- Would the project exceed the assumptions utilized in preparing the AQMP?

With respect to the first criterion, localized concentrations of nitrogen dioxide (NO₂) as NO_x, CO, PM₁₀, and PM_{2.5} have been analyzed for the Project. Sulfur dioxide (SO₂) emissions would be negligible during construction and long-term operations, and, therefore, would not have the potential to cause or affect a violation of the SO₂ ambient air quality standard. Since VOCs are not a criteria pollutant, there is no ambient standard or localized threshold for VOCs. Due to the role VOCs play in ozone (O₃) formation, it is classified as a precursor pollutant and only a regional emissions threshold has been established.

Particulate matter is the primary pollutant of concern during construction activities, and therefore, the Project's PM₁₀ and PM_{2.5} emissions during construction were analyzed: (1) to ascertain potential effects on localized concentrations; and (2) to determine if there is a potential for such emissions to cause or affect a violation of the ambient air quality standards for PM₁₀ and PM_{2.5}. As shown in Table IV.B-5 in Section IV.B, Air Quality, of the Draft EIR, the increases in PM₁₀ and PM_{2.5} emissions during construction would not exceed the SCAQMD-recommended significance thresholds at sensitive receptors in proximity to the Project Site.

Additionally, the Project's maximum potential NO_x and CO daily emissions during construction were analyzed to ascertain potential effects on localized concentrations and to determine if there is a potential for such emissions to cause or affect a violation of an applicable ambient air quality standard. As shown in Table IV.B-5 in Section IV.B, Air Quality, of the Draft EIR, NO_x and CO would not exceed the SCAQMD-recommended significance threshold and would not have a long-term impact on the region's ability to meet state and federal air quality standards. Therefore, Project construction would not result in a significant impact with regard to localized air quality.

Because the Project would not introduce any substantial stationary sources of emissions, CO is the preferred benchmark pollutant for assessing local area air quality impacts from post-construction motor vehicle operations.¹⁹ As indicated earlier, no intersections would require a CO hotspot analysis, and impacts would be less than significant. Therefore, the Project would not increase the frequency or severity of an existing CO violation or cause or contribute to new CO violations.

As discussed above, an analysis of potential localized operational impacts from on-site activities was conducted. As shown above in Table IV.B-7 in Section IV.B, Air Quality, of the Draft EIR, localized NO₂ as NO_x, CO, PM₁₀, and PM_{2.5} operational impacts would be less than significant. Therefore, the Project would not increase the frequency or severity of an existing violation or cause or contribute to new violations for these pollutants. As the Project would not exceed any of the state and federal standards, the Project would also not delay timely attainment of air quality standards or interim emission reductions specified in the AQMP.

With respect to the second criterion for determining consistency with SCAQMD and SCAG air quality policies, the projections in the AQMP for achieving air quality goals are based on assumptions in SCAG's 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) regarding population, housing, and growth trends. Thus, the SCAQMD's second criterion for determining consistency focuses on whether or not the Project exceeds the assumptions utilized in preparing the forecasts presented in the AQMP. Determining whether or not a project exceeds the assumptions reflected in the AQMP involves the evaluation of three criteria: (1) consistency with applicable population, housing, and employment growth projections; (2) Project mitigation measures; and (3) appropriate incorporation of AQMP land use planning strategies. The following discussion provides an analysis with respect to each of these three criteria.

¹⁹ SCAQMD, *CEQA Air Quality Handbook, Chapter 12, Assessing Consistency with Applicable Regional Plans, 1993.*

- Is the project consistent with the population, housing, and employment growth projections upon which AQMP forecasted emission levels are based?

A project is consistent with the AQMP, in part, if it is consistent with the population, housing, and employment assumptions that were used in the development of the AQMP. In the case of the 2016 AQMP, two sources of data form the basis for the projections of air pollutant emissions: the City of Long Beach General Plan and SCAG's *Regional Transportation Plan (RTP)*. As described in Section IV.H, Land Use, of the Draft EIR, the General Plan, which serves as a comprehensive, long-term plan for future development of the City, was originally adopted in 1974. In April 2016, SCAG adopted the 2016–2040 RTP/SCS, which is included in the 2016 AQMP. The 2016–2040 RTP/SCS provides socioeconomic forecast projections of regional population growth. The population, housing, and employment forecasts, which are adopted by SCAG's Regional Council, are based on the local plans and policies applicable to the specific area; these are used by SCAG in all phases of implementation and review. Refer to Subsection 3.d.4, City of Long Beach Policies, of the Draft EIR for a discussion of the Project's consistency with applicable goals, objectives, and policies of the General Plan Air Quality Element.

According to SCAG's 2016–2040 RTP/SCS, the forecasted employment for the City of Long Beach will increase by approximately 4,072 jobs between 2016 and 2019.²⁰ The Project is projected to generate an estimated 903 employees or approximately 22 percent of the total job growth project for the subregion through 2019.²¹ Such levels of employment growth are consistent with the employment forecasts for the subregion as adopted by SCAG. Because these same projections form the basis of the 2012 AQMP, the Project would be consistent with the projections in the AQMP.

- Does the project implement all feasible air quality mitigation measures?

The Project would comply with all applicable regulatory standards as required by the SCAQMD, as summarized above. The Project also would incorporate project design features and mitigation to support and promote environmental sustainability as discussed under Section IV.E, Greenhouse Gas Emissions, of the Draft EIR. While these features are designed primarily to reduce greenhouse gas emissions, they would also serve to reduce the criteria air pollutants discussed herein. As such, the Project meets this AQMP consistency criterion.

²⁰ Based on a linear interpolation of 2012–2040 data.

²¹ This calculation is conservative as it reflects total Project employment, not the net increase when accounting for existing hotel employees.

- To what extent is project development consistent with the land use policies set forth in the AQMP?

With regard to land use developments such as the Project, air quality policies focus on the reduction of vehicle trips and vehicle miles traveled. As discussed below and in Section IV.H, Land Use, of the Draft EIR, the Project would serve to implement a number of air quality-related policies established by the City of Long Beach and SCAG. The Project would be developed in a location well-served by public transit. As described in Section IV.K, Traffic and Access, of the Draft EIR, Long Beach Transit operates 10 bus lines in the study area and provides free Passport shuttle service to and around Downtown Long Beach attractions and destinations. The Orange County Transportation Authority provides three bus lines in the study area. In addition, the Metro Blue line 1st Street Station is located approximately 5 miles west of the Project Site and can be accessed via the Long Beach Transit Passport shuttle.

The surrounding Project area includes a mature network of pedestrian facilities, including sidewalks, crosswalks, and pedestrian safety features along Pacific Coast Highway, Marina Drive, and 2nd Street. Furthermore, bike routes, lanes, and paths are available in the Project Site area. The location of the Project Site and its accessibility to a variety of transportation options would encourage the use of alternative modes of transportation.

In addition, the Project would incorporate features to support and promote environmental sustainability, including energy conservation, water conservation, and waste reduction features. Such features would further reduce air emissions. Furthermore, to minimize particular emissions and control dust during construction, the Project would comply with SCAQMD Rule 403.

In conclusion, the determination of AQMP consistency is primarily concerned with the long-term influence of the proposed Project on air quality in the Air Basin. While development of the Project would result in short-term regional impacts, Project development would not have a significant long-term impact on the region's ability to meet State and federal air quality standards. The Project would comply with SCAQMD Rule 403 and would implement all feasible mitigation measures for control of PM₁₀, PM_{2.5}, and NO_x. Also, the Project would be consistent with the goals and policies of the AQMP for control of fugitive dust. As discussed above, the Project's long-term influence would also be consistent with the goals and policies of the AQMP and is, therefore, considered consistent with the SCAQMD's AQMP.

(4) City of Long Beach Policies

The City's General Plan Air Quality Element (1996) includes goals and policies related to air quality that apply to the Project. As specified in Project Design Feature B-1, the Project would be required to implement a variety of measures aimed at controlling dust during Project construction, consistent with General Plan Air Quality Element Policy 6.1. Policy 6.1 that states it is a policy of the City to "further reduce particulate emissions from roads, parking lots, construction sites, unpaved alleys, and port operations and related uses." General Plan Air Quality Element Policy 7.1 states that it is the policy of the City to "reduce energy consumption through conservation improvements and requirements." Consistent with this policy, the Project would incorporate features to support and promote environmental sustainability which would also serve to reduce air pollutant emissions. As discussed further in Section II, Project Description, of the Draft EIR, "green" principles are incorporated throughout the Project to comply with the City of Long Beach Green Building Ordinance (Ordinance No. ORD-09-0013) and the sustainability intent of the U.S. Green Building Council's LEED® program at the Certified level (or equivalent). These include energy conservation, water conservation, and waste reduction features.

b. Cumulative Impacts

(1) Construction

With respect to the Project's construction-period air quality emissions and cumulative Air Basin-wide conditions, the SCAQMD has developed strategies (e.g., SCAQMD Rule 403) to reduce criteria pollutant emissions outlined in the AQMP pursuant to federal CAA mandates. As such, the Project would comply with regulatory requirements, including SCAQMD Rule 403 requirements, as discussed above. In addition, the Project would comply with adopted AQMP emissions control measures. Per SCAQMD rules and mandates, as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, all construction projects Air Basin-wide would comply with these same requirements (i.e., SCAQMD Rule 403) and would implement all feasible mitigation measures when significant impacts are identified.

According to the SCAQMD, individual construction projects that exceed the SCAQMD's recommended daily thresholds for project-specific impacts would cause a cumulatively considerable increase in emissions for those pollutants for which the Air Basin is in non-attainment. Construction-related daily emissions at the Project Site would not exceed any of the SCAQMD's regional or localized significance thresholds. Thus, the Project's contribution to cumulative construction-related regional emissions would not be cumulatively considerable and therefore would be less than significant. Construction of the Project also would have a less than significant impact with regard to localized emissions. Therefore, the Project's contribution to cumulative air quality impacts due to localized

emissions also would not be cumulatively considerable and therefore would be less than significant.

Similar to the Project, the greatest potential for TAC emissions with respect to each related project would generally involve DPM emissions associated with heavy equipment operations during demolition and grading/excavation activities. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of individual cancer risk. "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of TACs over a 70-year lifetime will contract cancer, based on the use of standard risk-assessment methodology. Construction activities with respect to each related project would not result in a long-term (i.e., 70-year) substantial source of TAC emissions. In addition, the SCAQMD's CEQA Air Quality Handbook and SCAQMD's supplemental online guidance/information do not require an HRA for short-term construction emissions. It is, therefore, not required or meaningful to evaluate long-term cancer impacts from construction activities which occur over relatively short durations. As such, cumulative toxic emission impacts during construction would be less than significant.

(2) Operation

According to the SCAQMD, if an individual project results in air emissions of criteria pollutants that exceed the SCAQMD's recommended daily thresholds for project-specific impacts, then the project would also result in a cumulatively considerable net increase of these criteria pollutants. Operational emissions from the Project would not exceed the SCAQMD's localized significance thresholds. Therefore, the localized emissions of non-attainment pollutants would not be cumulatively considerable. Operational emissions from the Project would exceed the SCAQMD's regional NO_x significance threshold. Therefore, regional emissions of NO_x generated by Project operation would be cumulatively considerable.

With respect to TAC emissions, neither the Project nor any of the related projects (which include a limited amount of recreational, office, commercial/retail, restaurant, storage/warehouse, and infrastructure uses), would represent a substantial source of TAC emissions, which are more typically associated with large-scale industrial, manufacturing, and transportation hub facilities. The Project and related projects would be consistent with the recommended screening level siting distances for TAC sources, as set forth in CARB's Land Use Guidelines, and the Project and related projects would not result in a cumulative impact requiring further evaluation. However, the Project and each of the related projects would likely generate minimal TAC emissions related to the use of consumer products and landscape maintenance activities, among other things. Pursuant to California Assembly Bill 1807, which directs CARB to identify substances as TACs and adopt ATCMs to control such substances, the SCAQMD has adopted numerous rules (primarily in Regulation XIV)

that specifically address TAC emissions. These SCAQMD rules have resulted in and will continue to result in substantial Air Basin-wide TAC emissions reductions. As such, cumulative TAC emissions during long-term operations would be less than significant. In addition, the Project would not result in any substantial sources of TACs that have been identified in CARB's Land Use Guidelines and, thus, would not result in a cumulatively considerable impact or a cumulatively significant impact.

c. Project Design Features

The following project design features pertaining to air quality which are required in compliance with regulatory requirements would be implemented as part of the Project. Additional project design features and mitigation are set forth in Section IV.E, Greenhouse Gas Emissions (as updated in Section II, Corrections and Additions, and reflected in Section IV, Mitigation Monitoring and Reporting Program, of this Final EIR), which also would serve to reduce air emissions.

Project Design Feature B-1: In accordance with South Coast Air Quality Management District Rule 403, the Project shall incorporate fugitive dust control measures at least as effectively as the following measures:

- Use watering to control dust generation during the demolition of structures;
- Clean-up mud and dirt carried onto paved streets from the site;
- Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site;
- All haul trucks would be covered or would maintain at least 6 inches of freeboard;
- All materials transported off-site shall be either sufficiently watered or securely covered to prevent excessive amounts of spillage or dust;
- Suspend earthmoving operations or additional watering would be implemented to meet Rule 403 criteria if wind gusts exceed 25 mph;
- The owner or contractor shall keep the construction area sufficiently dampened to control dust caused by construction and hauling, and at all times provide reasonable control of dust caused by wind. All unpaved demolition and construction areas shall be wetted at least twice daily during excavation and construction, and temporary dust covers shall be used to reduce dust emissions; and

- An information sign shall be posted at the entrance to the 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. A construction relations officer shall be appointed to act as a community liaison concerning on-site activity, including investigation and resolution of issues related to fugitive dust generation.

Project Design Feature B-2: In accordance with California Code of Regulations Title 13, Section 2485, the idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds) during construction shall be limited to five minutes at any location.

Project Design Feature B-3: In accordance with California Code of Regulations Title 17, Section 93115, operation of any stationary, diesel-fueled, compression-ignition engines shall meet specified fuel and fuel additive requirements and emission standards.

Project Design Feature B-4: The Project shall comply with South Coast Air Quality Management District Rule 1113 limiting the volatile organic compound content of architectural coatings.

Project Design Feature B-5: The Project shall install odor-reducing equipment in accordance with South Coast Air Quality Management District Rule 1138.

Project Design Feature B-6: New on-site facility nitrogen oxide emissions shall be minimized through the use of emission control measures (e.g., use of best available control technology for new combustion sources such as boilers and water heaters) as required by South Coast Air Quality Management District Regulation XIII, New Source Review.

The Project also would incorporate features to support and promote environmental sustainability which would serve to reduce air pollutant emissions. “Green” principles are incorporated throughout the Project to comply with the City of Long Beach Green Building Ordinance (Ordinance No. ORD-09-0013) and the sustainability intent of the U.S. Green Building Council’s LEED® program at the Certified level (or equivalent). These include energy conservation, water conservation, and waste reduction features.

d. Mitigation Measures

Project-level and cumulative impacts with regard to construction would be less than significant, and no mitigation measures are required.

With regard to operational impacts, regional emissions from operation of the Project would exceed the SCAQMD daily threshold for NO_x. Therefore, the Project would result in

a significant operational impact associated with regional emissions. It is noted that operational mobile criteria pollutant emissions make up a majority of these regional operational emissions. The average daily trips used to generate mobile criteria pollutant emissions are based on the Project's trip-generation estimates included in the Traffic Study (see Appendix R of the Draft EIR). The analysis of mobile emissions presented herein also incorporates vehicle miles traveled (VMT) reduction measures provided in Section IV.E, Greenhouse Gas Emissions, of the Draft EIR (e.g., site-specific benefits resulting from the proposed mix of uses). These measures would reduce VMT by approximately 57 percent, as shown in Table IV.E-12, as updated in Section II, Corrections and Additions, of this Final EIR. Also, the Project would incorporate project design features and mitigation to support and promote environmental sustainability (refer to Section IV, Mitigation Monitoring and Reporting Program, of this Final EIR). While these features are designed primarily to reduce greenhouse gas emissions, they would also serve to reduce criteria air pollutants described herein. Similarly, project design features set forth in Section IV.K, Traffic and Access, of this Draft EIR would reduce VMT, thereby reducing NO_x emissions. No other project design features or feasible mitigation measures are available to substantially lessen the Project's operational impact associated with regional emissions. Therefore, Project impacts associated with regional operational emissions of NO_x would remain significant and unavoidable.

e. Level of Significance After Mitigation

(1) Construction

Project-level and cumulative impacts with regard to construction would be less than significant.

(2) Operation

As discussed above, the Project would include project design features and mitigation measures provided in Section IV.E, Greenhouse Gas Emissions and Section IV.K, Traffic and Access, of the Draft EIR (as updated in Section II, Corrections and Additions, and reflected in Section IV, Mitigation Monitoring and Reporting Program, of this Final EIR) that would serve to reduce air pollutant emissions. However, regional operational emissions of NO_x associated with the Project would continue to exceed SCAQMD significance thresholds. Therefore, operation of the Project would have a significant and unavoidable Project-level and cumulative impact on regional air quality. All other criteria pollutant emissions during Project operation would be less than significant.

Impacts related to local CO concentrations would be less than significant on a Project-level and cumulative basis and would be consistent with the air quality policies set

forth in the SCAQMD's AQMP and the City of Long Beach General Plan pertaining to air quality. Therefore, localized operational air quality impacts would be less than significant.

Project operation would not include any substantial TAC emission sources. As such, TAC impacts attributable to the Project would be less than significant on a Project-level and cumulative basis.

C. Cultural Resources

a. Analysis of Project Impacts

(1) Historic Resources

As described in Section II, Project Description, of the Draft EIR, the Project would involve the removal of the existing SeaPort Marina Hotel (formerly called the Edgewater Marina Inn Hotel) to allow for construction of a mixed use commercial shopping center. Based on the evaluation of historic significance discussed above, the existing SeaPort Marina Hotel is not considered eligible as a historic resource under any of the applicable criteria of the National Register of Historic Places, the California Register of Historical Resources, or as a City of Long Beach Landmark. This conclusion is consistent with a 2011 Draft EIR for another development proposal at the Project Site as well as the City's conclusion in preparing its Historic Preservation Element in 2010. Refer to the Historic Memo provided in Appendix FEIR-B of this Final EIR for further discussion. Therefore, the Project would not cause a substantial adverse change in the significance of a historic resource, and impacts associated with removal of the existing SeaPort Marina Hotel would be less than significant.

Additionally, due to the distance between the Project Site and the nearest historic resource (Long Beach Marine Stadium) as well as intervening development, Project implementation would not materially impair the historic setting of the historic Long Beach Marine Stadium. Therefore, the Project would not cause a substantial adverse change in the significance of a historic resource, and impacts to off-site historic resources in the Project vicinity would be less than significant.

(2) Archaeological Resources

The results of archeological records searches for the Project Site indicate there are no archaeological sites located within the Project Site, but four archaeological sites are located within a 0.5-mile radius. Additionally, extensive disturbance of the ground surface has previously occurred on-site in conjunction with past development activities. According to the 2015 records search, archaeological surface finds would be unlikely on-site.

However, based on the presence of archaeological resources in the surrounding vicinity and the ethnographic evidence which suggests prehistoric groups inhabited the area, the potential to encounter prehistoric resources in native soils (i.e., at depth) is considered moderate to high.

While the Project would require limited grading of an estimated 7,582 cubic yards for the placement of building footings and foundations, excavation activities could extend to a maximum depth of approximately 11.5 feet.²² Thus, there is a possibility of encountering archaeological resources or human remains within native soils. Accordingly, impacts with regard to archaeological resources and the discovery of human remains would be potentially significant. In light of this, the 2015 records search recommended archaeological monitoring of ground-disturbing activities in order to avoid damaging any previously unidentified resources.

(3) Paleontological Resources

As discussed above, the results of the paleontological records search indicate there are no vertebrate fossil localities within the Project Site. In addition, surficial material identified on the Project Site, which consists of artificial fill on top of younger Quaternary Alluvium, is unlikely to contain vertebrate fossils. Moreover, past development activities have disturbed virtually the entire ground surface within the Project Site. However, deeper excavations within older Quaternary deposits may contain significant fossil vertebrate materials.

Despite limited grading of an estimated 7,582 cubic yards for the placement of building footings and foundations, excavation activities could extend to a maximum depth of approximately 11.5 feet.²³ As such, there is a potential to encounter paleontological resources within deeper excavations, and impacts would be potentially significant. In light of this, the 2015 records search indicated any substantial and deep excavations should be monitored to recover any fossil remains discovered.

²² *The majority of excavation would extend to an average depth of five to six feet, with utility installations occurring at approximately seven to eight feet below the ground surface. The maximum excavation depth would occur in a limited area in conjunction with soil remediation activities near the location of the former gas station.*

²³ *The majority of excavation would extend to an average depth of five to six feet, with utility installations occurring at approximately seven to eight feet below the ground surface. The maximum excavation depth would occur in a limited area in conjunction with soil remediation activities near the location of the former gas station.*

(4) Tribal Cultural Resources

On October 20, 2016 the City sent formal notification of the Project to 12 representatives of 10 different Native American tribal groups in compliance with the requirements of Assembly Bill (AB) 52. As of January 2017, the City has received responses from John Tommy Rosas of the Tongva Ancestral Territorial Nation and Andrew Salas, Chairman of the Gabrieleño Band of Mission Indians, Kizh Nation. Mr. Rosas requested archaeological testing be conducted concurrent with geotechnical core testing for building foundations using hollow bits, and Chairman Salas requested a certified Native American monitor be present during ground disturbing activities.

In addition, although no archaeological sites have been identified on-site, four archaeological sites are located within a 0.5-mile radius, including two prehistoric resources (CA-LAN-278 and CA-LAN-1821). Archaeological evidence indicates prehistoric occupation of the general Project area by the Gabrielino, and as noted above, Chairman Salas has confirmed the Project Site is located in an area where tribal villages were once located.

Based on this information provided by the Tongva Ancestral Territorial Nation and the Gabrieleño Band of Mission Indians, Kizh Nation, tribal monitoring and archaeological testing will be conducted.

b. Cumulative Impacts

As indicated in Section III, Environmental Setting, of the Draft EIR, there are six related projects in the general vicinity of the Project Site. While the majority of the related projects are located a fair distance from the Project Site, as shown in Figure III-1 therein, one related project (Related Project No. 4, the Los Cerritos Wetlands Restoration and Oil Consolidation Project) is located in relatively close proximity to the Project Site.²⁴ Collectively, the related projects near the Project Site involve primarily residential, retail, restaurant, office, and recreational uses, consistent with existing uses in the Project area. Also proposed are an industrial facility, new oil wells, and a wetlands mitigation bank, which are also consistent with existing uses.

Although impacts to historic resources tend to be site-specific, a cumulative impact analysis of historic resources determines whether the impacts of a project and the related

²⁴ *Related Project No. 4 is made up of four sites located at 6422 East 2nd Street, 6701 East PCH, the northeast corner of Studebaker Road and 2nd Street, and Shopkeeper Road at 2nd Street, southeast of the Project Site.*

projects in the surrounding area, when taken as a whole, would substantially diminish the number of historic resources within the same or similar context or property type. Specifically, cumulative impacts would occur if the Project and related projects affect local resources with the same level or type of designation or evaluation, affect other structures located within the same historic district, or involve resources that are significant within the same context. As previously evaluated, Project-related impacts associated with historic resources adjacent to the Project Site and in the Project vicinity would be less than significant. Therefore, the Project would not contribute to cumulative impacts associated with historic resources, and the Project's impacts to historic resources would not be cumulatively considerable. As such cumulative impacts to historic resources would be less than significant.

With regard to potential cumulative impacts related to archaeological and paleontological resources, the Project vicinity is located within an urbanized area that has been substantially disturbed and developed over time. In the event that archaeological and paleontological resources are uncovered, each related project would be required to comply with applicable regulatory requirements, such as CEQA Guidelines Section 15064.5, Public Resources Code Sections 5097.9 and 21083.2, and Health and Safety Code Section 7050.5. In addition, as part of the environmental review processes for the related projects, it is expected that mitigation measures would be established as necessary to address the potential for uncovering paleontological resources and archaeological resources. Therefore, Project impacts to archaeological and paleontological resources would not be cumulatively considerable, and cumulative impacts related to archaeological and paleontological resources would be less than significant.

With regard to tribal cultural resources, it is expected that the related projects would also comply with regulatory requirements, including required consultation with relevant California Native American tribes and that mitigation measures would be established as necessary to address the potential for uncovering any resources. Thus, impacts would not be cumulatively considerable.

c. Project Design Features

No specific project design features are proposed with regard to cultural resources.

d. Mitigation Measures

Mitigation Measure C-1: An Archaeologist meeting the Secretary of the Interior's Professional Qualification Standards shall be retained by the Project Applicant and approved by the City to oversee and carry out the archaeological mitigation measures set forth in this EIR. The

Archaeologist shall attend a pre-grade meeting and develop an appropriate monitoring program and schedule. As part of this effort, the Archaeologist shall select a qualified archaeological monitor to be retained by the Project Applicant and approved by the City.

Mitigation Measure C-2: The qualified archaeological monitor shall monitor excavation and grading activities within native soils on the Project Site that have not been previously disturbed. In the event cultural resource(s) are unearthed during ground-disturbing activities, the archaeological monitor shall halt or redirect such activities away from the area of the find to allow evaluation, and work may continue outside the vicinity of the find. Deposits shall be treated in accordance with applicable federal, state, and local guidelines, including those set forth in California Public Resources Code Section 21083.2. In addition, if it is determined that an archaeological site is a historical resource, the provisions of Public Resources Code Section 21084.1 and CEQA Guidelines Section 15064.5 shall be implemented.

The Archaeologist shall evaluate the discovered resource(s) and if significant, notify the Project Applicant, the City, and an appropriate Native American representative (if prehistoric or Native American in nature), and then develop an appropriate treatment plan. Treatment plans shall consider preservation of the resource(s) in place as a preferred option. The Archaeologist shall then prepare a report to be reviewed and approved by the City and file it with the Project Applicant, the City, and the South Central Coastal Information Center located at the California State University, Fullerton. The report shall describe any resource(s) unearthed, the treatment of such resource(s), and the evaluation of the resource(s) with respect to the California Register of Historic Resources and the National Register of Historic Places. If the resource(s) are found to be significant, a separate report detailing the results of the recovery and evaluation process shall be prepared. The City shall designate one or more appropriate repositories for any cultural resource(s) that are uncovered.

Mitigation Measure C-3: If human remains are encountered unexpectedly during ground-disturbing activities, work in the affected area and the immediate vicinity shall be halted immediately. The construction manager at the Project Site shall be contacted and shall notify the County Coroner. If the County Coroner determines the remains to be Native American, the Archaeologist and Native American monitor shall then be contacted, if they are not on-site at the time, as well as the responsible lead agency of the discovery, who in turn shall notify the Native American Heritage Commission. Disposition of the human remains and any associated grave goods shall be in accordance with California Health and Safety Code Section 7050.5

and Public Resources Code Sections 5097.91 and 5097.98. The Archaeologist and the Native American monitor, with the concurrence of the City, shall determine the area of potential impact and the timing when construction activities can resume. Preservation of the remains in place shall be considered as a possible course of action by the Project Applicant, the City, and the Most Likely Descendent.

Mitigation Measure C-4: A qualified paleontologist shall be retained to perform periodic inspections of excavation and grading activities within any older Quaternary deposits at the Project Site. The frequency of inspections shall be based on consultation with the paleontologist and shall depend on the rate of excavation and grading activities, the materials being excavated, and if found, the abundance and type of fossils encountered. If paleontological materials are encountered during ground-disturbing activities associated with Project construction, all further ground disturbance in the immediate area shall be temporarily diverted and the services of a qualified paleontologist shall then be secured. The paleontologist shall assess the discovered material(s) and prepare a survey, study or report evaluating the impact. The paleontologist's survey, study or report shall contain a recommendation(s), if necessary, for the preservation, conservation, or relocation of the resource, as appropriate. The Applicant shall then comply with the recommendations of the evaluating paleontologist, and a copy of the paleontological survey report shall be submitted to the Los Angeles County Natural History Museum. Ground-disturbing activities may resume once the paleontologist's recommendations have been implemented to the satisfaction of the paleontologist. The fossils and a copy of the report shall be deposited in an accredited curation facility.

Mitigation Measure C-5: The Project Applicant shall allow access to the Project Site by a certified Native American tribal monitor during any and all ground-disturbing activities (including but not limited to pavement removal, post holing, auguring, boring, grading, excavation, and trenching) to protect any cultural resources which may be affected during construction or development. Discovery of any archaeological resources shall trigger implementation of Mitigation Measures C-1 through C-3, as applicable.

Mitigation Measure C-6: Archaeological testing shall be conducted concurrently with geotechnical core testing for building foundations using hollow bits; the use of augur bits shall be prohibited. Discovery of any archeological resources shall trigger Mitigation Measures C-1 through C-3, as applicable.

e. Level of Significance After Mitigation

As evaluated above, impacts to historic resources would be less than significant. Mitigation Measures C-1 through C-6, set forth above, would fully mitigate impacts to archaeological, paleontological, and tribal cultural resources. Accordingly, with regulatory compliance and implementation of Mitigation Measures C-1 through C-6, Project-level impacts related to archaeological resources including human remains, paleontological resources, and tribal cultural resources would be less than significant. Cumulative impacts on historic, archaeological, paleontological, and tribal cultural resources also would be less than significant.

D. Geology and Soils

a. Analysis of Project Impacts

(1) Strong Seismic Ground Shaking

The Project Site is located within the seismically active region of Southern California. The Newport–Inglewood fault and the Palos Verdes fault are the nearest faults to the Project Site, located approximately 0.3 mile northeast and approximately 8.1 miles southwest of the Project Site, respectively. As with other development projects in the Southern California region, the Project would comply with the current seismic design provisions of the California Building Standards Code to minimize seismic impacts. The California Building Standards Code incorporates the latest seismic design standards for structural loads and materials as well as provisions from the National Earthquake Hazards Reduction Program to mitigate losses from an earthquake and provide for the latest in earthquake safety. Additionally, the Project would be required to adhere to the seismic safety requirements contained in the Long Beach Building Code (Title 18), which incorporates by reference the California Building Standards Code, with City amendments for additional requirements. The Project also would be required to comply with the site plan review and permitting requirements of the Long Beach Development Services, including the recommendations provided in a final, site-specific geotechnical report subject to review and approval by the Long Beach Bureau of Building and Safety, as provided in Project Design Feature D-1, below. Through compliance with regulatory requirements and site-specific geotechnical recommendations, the Project would not cause or accelerate geologic hazards related to strong seismic ground shaking, which would result in substantial damage to structures or infrastructure, or expose people to substantial risk of injury. Therefore, impacts related to strong seismic ground shaking would be less than significant.

(2) Soil Stability

(a) Liquefaction

According to the California Geological Survey Seismic Hazards Zones Maps and the Long Beach General Plan Seismic Safety Element, the Project Site is located within an area considered susceptible to liquefaction. Based on the Geotechnical Report and the 2010 Geotechnical Evaluation, the existing soil conditions within the Project Site are potentially liquefiable during a strong earthquake event. Therefore, impacts associated with liquefaction would be considered potentially significant.

(b) Settlement

Based on the Geotechnical Report and the 2010 Geotechnical Evaluation, due to the Project Site's location within an area susceptible to liquefaction, there is a potential for liquefaction-induced settlement within the Project Site. In addition, potential compressible natural soils and undocumented fills underlying the Project Site could pose a risk of adverse settlement under static loads imposed by new foundations and structures. Therefore, impacts associated with settlement would be potentially significant.

(c) Lateral Spreading

Based on Geotechnical Report, the soil layers beneath the Project Site were determined to have an adequate factor of safety against lateral spreading. Therefore, impacts associated with lateral spreading would be less than significant.

(c) Subsidence

Based on the City of Long Beach Seismic Safety Element, the Project Site is not located within an area of known ground subsidence. In addition, no large-scale extraction of groundwater, gas, oil, or geothermal energy occurs or is planned at the Project Site. Therefore, there is little to no potential for ground subsidence at the Project Site, and impacts would be less than significant.

(d) Expansive Soils

The near-surface soils are mainly sand and, therefore, their expansion potential is considered low. Additionally, previous testing performed as part of the 2005 Geotechnical Investigation concluded the near-surface soils generally exhibit a low expansion potential. As such, impacts related to expansive soils would be less than significant.

b. Cumulative Impacts

Due to the site-specific nature of geological conditions (i.e., soils, geological features, subsurface features, seismic features, etc.), geology impacts are typically assessed on a project-by-project basis. Nonetheless, cumulative growth in the Project area, inclusive of the six related projects identified in Section III, Environmental Setting, of the Draft EIR, would expose a greater number of people to seismic hazards. However, as with the Project, related projects and other future development projects would be subject to established guidelines and regulations pertaining to building design and seismic safety, including those set forth in the California Building Standards Code and the Long Beach Building Code, and mitigation would be implemented, as required. With adherence to applicable regulations, Project impacts with regard to geology and soils would not be cumulatively considerable, and cumulative impacts with regard to geology and soils would be less than significant.

c. Project Design Features

Project Design Feature D-1: A final design-level geotechnical report that complies with all applicable state and local code requirements will be prepared for the Project by a qualified geotechnical engineer and certified engineering geologist and submitted to the Long Beach Bureau of Building and Safety, consistent with City of Long Beach Building Standards Code requirements. The site-specific geotechnical report will be prepared to the written satisfaction of the City of Long Beach Bureau of Building and Safety and will include recommendations for specific building locations and designs, including those pertaining to site preparation, fills and compaction, foundations, etc.

d. Mitigation Measures

Mitigation Measure D-1: The Project shall incorporate site-specific ground improvement requirements as a result of liquefaction and liquefaction-induced settlement set forth in a final, site-specific geotechnical report. Such requirements could include, but would not be limited to, stone columns, ramped aggregate piers, or deep soil mixing that would improve the strength of soils and/or provide drainage paths for pore water pressure dissipation. Following ground improvement, the proposed structures may be supported on a conventional shallow foundation system. As an alternative, the proposed structures may be supported on a deep foundation system that extends through liquefiable zones into competent material.

Mitigation Measure D-2: Soils on-site shall be treated according to the recommendations of a final, site-specific geotechnical report to

reduce differential settlement to 0.5 inch over a horizontal distance of 30 feet and 1 inch over the entire building footprint. The zone of ground improvement shall cover the structure footprints and extend a minimum horizontal distance of 10 feet beyond the footprints, where feasible, if a mat foundation is used. If a conventional shallow foundation system is used, closely spaced ground improvement shall be incorporated within the footprint of the footings.

e. Level of Significance After Mitigation

Impacts related to subsidence and expansive soils would be less than significant, and no mitigation would be required. With compliance with all applicable regulations, including California Building Standards Code and Long Beach Building Code requirements, as well as implementation of Project Design Feature D-1, Project-level impacts with regard to seismic ground shaking would be less than significant. With implementation of Mitigation Measure D-1 and Mitigation Measure D-2, potential impacts associated with liquefaction and settlement would be reduced to a less than significant level. Cumulative impacts related to geology and soils would be less than significant.

E. Greenhouse Gas Emissions

a. Analysis of Project Impacts

(1) Construction Impacts

Project construction is anticipated to be completed in 2019. A summary of construction details (e.g., schedule, equipment mix, and vehicular trips) and CalEEMod modeling input assumptions and output files are provided in Appendix B of the Draft EIR. The emissions of GHGs associated with construction of the Project were calculated for each year of construction activity. A summary of GHG emissions for each year of construction is presented in Table IV.E-5, as updated in Section II, Corrections and Additions, of this Final EIR.

As presented in Table IV.E-5, construction of the Project is estimated to generate a total of 2,069 metric tons of CO₂ equivalent mass (MTCO₂e). As recommended by the SCAQMD, the total GHG construction emissions were amortized over the 30-year lifetime of the Project (i.e., total construction GHG emissions were divided by 30 to determine an annual construction emissions estimate that can be added to the Project's operational emissions) in order to determine the Project's annual GHG emissions inventory.²⁵

²⁵ SCAQMD Governing Board Agenda Item 31, December 5, 2008.

(2) Operational Impacts

(a) Area Source Emissions

Project area source emissions (i.e., direct sources of GHG emissions located at the project site with the exception of building operations) and to a lesser extent existing site conditions would be limited to combustion emissions from landscape maintenance equipment. These GHG emissions were calculated using the CalEEMod emissions inventory model based on the type of land use and acreage. As shown in Table IV.E-6 in Section IV.E, Greenhouse Gas Emissions, of the Draft EIR, landscape maintenance activities do not represent a substantial source of GHG emissions, and all analyzed conditions are expected to result in less than one metric ton of CO₂e per year from area sources. The Project would not incorporate any specific project design features that would reduce the use of landscape maintenance equipment. As such, the Project would not result in a reduction in GHG emissions (for area source emissions) in comparison to the “no implementation of emission reduction measures” (NIERM) scenario.

(b) Electricity and Natural Gas Emissions

GHGs are emitted as a result of activities in buildings when electricity and natural gas are used as energy sources. Combustion of any type of fuel emits CO₂ and other GHGs directly into the atmosphere; when this occurs in a building, it is a direct emission source associated with that building. GHGs are also emitted during the generation of electricity from fossil fuels. When electricity is used in a building, the electricity generation typically takes place off-site at the power plant; electricity use in a building generally causes emissions in an indirect manner.

Electricity and natural gas emissions were calculated using the CalEEMod emissions inventory model, which multiplies an estimate of the energy usage by applicable emissions factors chosen by the utility company. GHG emissions from electricity use are directly dependent on the electricity utility provider. In this case, GHG intensity factors for Southern California Edison (SCE) were selected in CalEEMod. Energy use in buildings is divided into energy consumed by the built environment and energy consumed by uses that are independent of the construction of the building, such as in plug-in appliances. CalEEMod calculates energy use from systems covered by Title 24 (e.g., heating, ventilation, and air conditioning [HVAC] system, water heating system, and lighting system); energy use from lighting; and energy use from office equipment, appliances, plug-ins, and other sources not covered by Title 24 or lighting.

CalEEMod electricity and natural gas usage rates are based on the CEC-sponsored California Commercial End-Use Survey (CEUS) and California Residential Appliance

Saturation Survey (RASS) studies.²⁶ The data are specific for climate zones; therefore, Zone 11 was selected for the Project Site based on the zip code tool. Since these studies are based on older buildings, adjustments have been made to account for changes to Title 24 building codes but do not reflect 2016 Title 24 standards. For the Project scenario, an adjustment was made to account for the 2016 Title 24 standards. The 2016 Title 24 standards are applicable to the Project. Since the NIERM scenario reflects the standards that were in effect under the *Climate Change Scoping Plan* prepared in 2006 (Title 24, 2005 Building Energy Efficiency Standards), CalEEMod also provides the ability to select electricity and usage rates that would reflect previous versions of Title 24.

As shown in Table IV.E-7 in Section IV.E, Greenhouse Gas Emissions, of the Draft EIR, Project GHG emissions from electricity consumption would result in 1,735 MTCO₂e per year as compared to 2,255 MTCO₂e per year under the NIERM scenario. This would represent a reduction of approximately 23 percent in comparison to the NIERM scenario. This reduction from NIERM is attributable to compliance with mandatory requirements for achieving LEED[®] Certification (or equivalent). Furthermore, electricity from lighting also would be reduced consistent with the Energy Independence and Security Act, which requires approximately 25 percent greater efficiency for light bulbs by phasing out incandescent light bulbs.

As shown in Table IV.E-8 in Section IV.E, Greenhouse Gas Emissions, of the Draft EIR, Project GHG emissions from natural gas consumption would result in 1,040 MTCO₂e per year as compared to 1,099 MTCO₂e per year under the NIERM scenario. This would represent a reduction of approximately 5 percent in comparison to the NIERM scenario. This reduction from NIERM is also attributable to compliance with mandatory requirements for achieving LEED[®] Certification (or equivalent).

(c) Mobile Source Emissions

Mobile-source emissions were calculated using the SCAQMD-recommended CalEEMod emissions inventory model. CalEEMod calculates the emissions associated with on-road mobile sources associated with employees, visitors, and delivery vehicles visiting the Project Site based on the number of daily trips generated and VMT.

Mobile source operational emissions were calculated based on the project trip-generation estimates provided for the Project by Linscott Law & Greenspan.²⁷ As

²⁶ CEC, *Commercial End-Use Survey, March 2006, and California Residential Appliance Saturation Survey, October 2010.*

²⁷ *Linscott, Law, & Greenspan, Engineers, Traffic Impact Analysis 2nd & PCH Project, March 2017; see Appendix R of the Draft EIR.*

discussed in Section IV.K, Traffic and Access, of the Draft EIR, to calculate daily trips, the amount of building area for the commercial and retail uses were multiplied by the applicable trip-generation rates based on the Institute of Transportation Engineers' (ITE) *Trip Generation, 9th Edition*.

CalEEMod calculates VMT based on the type of land use, trip purpose, trip type percentages for each land use subtype in the project (primary, diverted, and pass-by). The model assumes that diverted trips are 25 percent of the primary trip lengths and pass-by trips are assumed to be 0.1 mile in length and are a result of no diversion from the primary route. The Los Angeles County urban primary trip distance was selected for this analysis.

Public transit in the Project area is provided by Metro, Orange County Transportation Authority, and Long Beach Transit. Long Beach Transit operates 10 bus lines in the study area and also provides free Passport shuttle service connecting visitors to and around Downtown Long Beach attractions and destinations. The Orange County Transportation Authority provides three bus lines in the study area. The Metro Blue Line 1st Street Station is located approximately 5 miles east of the Project Site. Refer to Section IV.K, Traffic and Access, of the Draft EIR for more details regarding trip reduction measures. The Project also reflects characteristics that reduce trips and VMT as compared to standard ITE trip generation rates. More specifically, the Project characteristics listed below are consistent with the California Air Pollution Control Officers Association (CAPCOA) guidance document, *Quantifying Greenhouse Gas Mitigation Measures*, which provides emission reduction values for recommended mitigation measures and serves to reduce vehicle trips and VMT. These characteristics thus would result in a reduction in the Project's VMT and associated GHG emissions.²⁸ Measures applicable to the Project include the following:

Increase Diversity of Urban and Suburban Developments (Mixed-Uses)

(LUT-3): The Project would introduce new uses on the Project Site, including new commercial/retail/restaurant uses. The Project would co-locate complementary commercial/retail/restaurant uses in proximity to other existing off-site residential and commercial uses. The increases in land use diversity and the specific mix of uses on the Project Site would reduce vehicle trips and VMT by encouraging walking and non-automotive forms of transportation (i.e., walking and biking), which would result in corresponding reductions in transportation-related emissions. (Note: This measure results in a 15.5-percent reduction in VMT.)

²⁸ California Air Pollution Control Officers Association, *Quantifying Greenhouse Gas Mitigation Measures*, 2010, pp. 162–189.

Increase Destination Accessibility (LUT-4): The Project Site is located within 5 miles of Downtown Long Beach and the Port of Long Beach, both of which are primary job centers and are easily accessible by public transportation. Access to multiple destinations in proximity to the Project Site would reduce vehicle trips and VMT compared to the statewide average; encourage walking and non automotive forms of transportation; and would result in corresponding reductions in transportation-related emissions as a result of the Project. (Note: This measure results in a 9.3-percent reduction in VMT.)

Increase Transit Accessibility (LUT-5): Locating a project with high density near transit will facilitate the use of transit by people traveling to or from the Project Site. CAPCOA provides a range of effectiveness between 0.5 – 24.6 percent reduction in VMT for transit station/stops with high-quality, high-frequency bus service located within a 5-10 minute walk. The Project Site is well serviced by Long Beach Transit which operates 10 bus lines in the Project area and provides free Passport shuttle service connecting visitors to and around Downtown Long Beach attractions and destinations. However, the GHG analysis conservatively did not quantify the reduction from transit as the transit station is located at a distance greater than a 5-10 minute walk.

Locate Project near Bike Path/Bike Lane (LUT-8): A Project that is designed around an existing or planned bicycle facility encourages alternative mode use. The Project Site is located adjacent to existing Class II bike lanes on PCH, Marina Drive, and 2nd Street. CalEEMod does not provide this measure under mitigation and, therefore, it was not quantified in the GHG analysis. However, CAPCOA provides a 0.625 percent reduction in VMT for this measure.

Improve Walkability Design (LUT-9): Improved design elements to enhance walkability and connectivity within a neighborhood include street accessibility and a pedestrian-oriented environment. CAPCOA provides a range of effectiveness between 3.0 – 21.3 percent reduction in VMT. The Project Site is located in an area of the City with a mature network of pedestrian facilities including sidewalks, crosswalks, and pedestrian safety features along PCH, Marina Drive, and 2nd Street. The existing sidewalk system within the Project vicinity provides direct connectivity to the existing shopping center to the immediate south and public transit stops along PCH and 2nd Street. CalEEMod requires the number of intersections within a square mile of the Project Site, which is 46 intersections. This number was then doubled to account for the adjacent marina which would provide additional walking opportunities. (Note: This measure results in a 14.1-percent reduction in VMT.)

Provide Pedestrian Network Improvements (SDT-1): Project design would provide pedestrian access that minimizes barriers and links the Project Site with the existing street network to encourage people to walk instead of drive. The Project would provide direct access to the existing off-site pedestrian network to encourage and increase pedestrian activities in the area, which would further reduce VMT and associated transportation-related emissions. (Note: This measure results in a 3.6-percent reduction in VMT.)

Proximity to Traffic Calming Measures (SDT-2): Providing traffic calming measures encourages people to walk or bike instead of using a vehicle. CAPCOA provides a range of effectiveness between 0.25 – 1.0 percent reduction in VMT. As discussed above, the City is undertaking the Marina Drive Project which will include a mid-block pedestrian crossing adjacent to the 2nd & PCH frontage; new sidewalk where there are gaps in the existing sidewalks thereby providing a continuous sidewalk on the east side between 2nd Street and Studebaker Road. This measure was not quantified in the Draft EIR. CalEEMod requires the percentage of streets with sidewalks (100 percent) and the percentage of intersections (25 percent) with improvements (e.g., cross walks or other pedestrian safety features) in the Project vicinity. (Note: This measure results in a 0.2-percent reduction in VMT.)

Provide Bike Parking in Non-Residential Projects (SDT-6): A non-residential project that provides bicycle parking facilities encourages alternative mode use. Bicycle parking spaces for the Project would be provided in compliance with LBMC requirements. Based on LBMC Section 21.64.030(B)(2)(c), a minimum of eight bicycle parking spaces would be required. CalEEMod does not provide this measure under mitigation and, therefore, it was not quantified in the GHG analysis. However, CAPCOA provides a 0.625 percent reduction in VMT for this measure.

Limit Parking Supply (PDT-1): Reducing the number of parking spaces can encourage “smart growth” development and alternative transportation choices. As discussed in Section IV.K, Traffic and Access, of the Draft EIR, that the Project would provide parking at a reduced rate relative to LBMC parking requirements. Specifically, LBMC Chapter 21.41, *Off-Street Parking and Loading Requirements*, sets forth parking requirements for development projects based on the types and floor area of land uses. As detailed therein, community, regional, and neighborhood shopping centers require five spaces per 1,000 square feet plus additional parking for detached fast-food restaurants. Based on the Parking Analysis included as Appendix S of the Draft EIR, the proposed 1,150 parking spaces included in the Project (providing a ratio of approximately 4.7 per 1,000 gross square feet of floor area) would be adequate to meet Project-

generated parking demand. (Note: This measure results in a 3.0-percent reduction in VMT.)

In addition, Project Design Feature K-8 would require implementation of transportation demand management (TDM) measures to reduce vehicle trips and encourage the use of public transit. These measures include the provision of appropriate bicycle parking facilities; vanpool/carpool loading/unloading and parking areas; preferential parking spaces for employee carpool/vanpool vehicles; a bulletin board/kiosk displaying information regarding bus schedules and routes, bike routes, carpool/vanpool opportunities; and a rideshare drop off/pickup area and concierge service that would be incorporated into the Project's design. Although a specific reduction in trips associated with these TDM measures has not been determined, a reasonable conservative estimate based on similar TDM plans would be a 10 percent reduction in trips.

CalEEMod calculates VMT based on the type of land use, trip purpose, trip type percentages for each land use subtype in the project (primary, diverted, and pass-by). As shown in Table IV.E-9, as updated in Section II, Corrections and Additions, of this Final EIR, the Project GHG emissions from mobile sources would result in a total 6,785MTCO₂e per year as compared to 14,222 MTCO₂e per year for a standard project with similar land use characteristics within the air basin. This would represent a reduction of approximately 52 percent in comparison to the NIERM scenario. This reduction from the NIERM scenario is attributable to the Project characteristics described above.

(d) Solid Waste Generation Emissions

Emissions related to solid waste were calculated using the CalEEMod emissions inventory model, which multiplies an estimate of the waste generated by applicable emissions factors provided in Section 2.4 of the United States Environmental Protection Agency's (USEPA) AP-42, Compilation of Air Pollutant Emission Factors. CalEEMod solid waste generation rates for each applicable land use were selected for this analysis. As shown in Table IV.E-10 in Section IV.E, Greenhouse Gas Emissions, of the Draft EIR, the Project and NIERM scenario are both expected to result in a total of 476 MTCO₂e per year from solid waste.

(e) Water Usage and Wastewater Generation Emissions

GHG emissions are related to the energy used to convey, treat, and distribute water and wastewater. Thus, these emissions are generally indirect emissions from the production of electricity to power these systems. Three processes are necessary to supply potable water; these include: (1) supply and conveyance of the water from the source; (2) treatment of the water to potable standards; and (3) distribution of the water to

individual users. After use, energy is used as the wastewater is treated and reused as reclaimed water.

Emissions related to water usage and wastewater generation were calculated using the CalEEMod emissions inventory model, which multiplies an estimate of the water usage by the applicable energy intensity factor to determine the embodied energy necessary to supply potable water.²⁹ GHG emissions are then calculated based on the amount of electricity consumed multiplied by the GHG intensity factors for the utility provider. In this case, embodied energy for Southern California supplied water and GHG intensity factors for SCE were selected in CalEEMod.

As shown in Table IV.E-11 in Section IV.E, Greenhouse Gas Emissions, of the Draft EIR, the Project is expected to result in 174 MTCO₂e as compared to 226 MTCO₂e per year under the NIERM scenario per year from water usage and wastewater generation, which would represent a reduction of approximately 23 percent in comparison to the NIERM scenario. This reduction from NIERM is attributable to compliance with mandatory requirements for achieving LEED[®] Certification (or equivalent). Also refer to Section IV.L.1, Utilities and Service Systems—Water Supply and Infrastructure, of the Draft EIR for discussion of specific water usage reduction measures applicable to the Project.

(3) Combined Construction and Operational Impacts

As shown in Table IV.E-12, as updated in Section II, Corrections and Additions, of this Final EIR, when taking into consideration implementation of project design features provided throughout this Draft EIR, including the requirements set forth in the City of Long Beach Green Building Ordinance and the full implementation of current state mandates, the GHG emissions for the Project in 2019 would equal 69 MTCO₂e per year during construction and 10,011 MTCO₂e per year during operation of the Project with a combined total of 10,080 MTCO₂e per year.

Furthermore, the Project would be designed in accordance with applicable regulatory requirements and the project design features included throughout this Draft EIR that would reduce emissions through reduced energy consumption and be consistent with goals provided in the City's General Plan Air Quality Element and the City's Sustainable City Action Plan. Specifically, the Project would comply with the 2016 Title 24 standard requirements for energy efficiency, and new buildings and infrastructure would be designed to achieve the standards of the Certified Rating under LEED[®] (or equivalent).

²⁹ *The intensity factor reflects the average pounds of CO₂e per megawatt generated by a utility company.*

(4) NIERM Calculation

Table IV.E-12, as updated in Section II, Corrections and Additions, of this Final EIR, calculates the GHG emissions that would occur under the NIERM scenario, which highlights the GHG emissions reductions achieved by regulatory requirements and design features. As shown in Table IV.E-12, the Project would result in a decrease in GHG emissions that represents an approximate 46-percent reduction from the NIERM scenario. The Project includes project design features and is subject to all applicable regulatory requirements that would reduce the Project's GHG emissions profile and would represent improvements vis-à-vis the NIERM scenario. These reductions in GHG emissions reflect the measures set forth in the applicable GHG reduction plans and policies and demonstrate the efficacy of these measures.

(5) Consistency with Applicable Plans and Policies

As described above, compliance with a GHG emissions reduction plan renders a less than significant impact. The following section describes the extent the Project complies with or exceeds the performance-based standards included in the regulations that serve to implement the *Climate Change Scoping Plan*, the Regional Transportation Plan/Sustainable Communities Strategy, and the Sustainable City Action Plan. As shown herein, the Project would be consistent with the applicable GHG reduction plans and policies.

(a) *Climate Change Scoping Plan*

The goal to reduce GHG emissions to 1990 levels by 2020 (Executive Order S-3-05) was codified by AB 32, and in 2008, CARB approved a *Climate Change Scoping Plan* as required by AB 32.³⁰ The *Climate Change Scoping Plan* proposes a “comprehensive set of actions designed to reduce overall carbon GHG emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health.”³¹ The *Climate Change Scoping Plan* has a range of GHG reduction actions which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and an AB 32 implementation fee to fund the program. The following discussion demonstrates how the pertinent reduction actions relate to and reduce project-related GHG emissions.

³⁰ *Climate Change Proposed Scoping Plan was approved by CARB on December 11, 2008.*

³¹ *Climate Change Scoping Plan, CARB, December 2008.*

As shown in Table IV.E-12, as updated in Section II, Corrections and Additions, of this Final EIR, the Project would result in 10,080 MTCO₂e annually. The breakdown of emissions by source category shows approximately less than 1 percent from area sources; 28 percent from energy consumption; 67 percent from mobile sources; 5 percent from solid waste generation; less than 1 percent from water supply, treatment, and distribution; and 1 percent from construction activities. Provided in Table IV.E-13 in Section IV.E, Greenhouse Gas Emissions, of the Draft EIR is an evaluation of applicable reduction actions/strategies by emissions source category to determine how the Project's design features comply with or exceed the reduction actions/strategies outlined in the *Climate Change Scoping Plan*.³²

(b) 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy

As discussed above, the SCAG region was home to about 18.3 million people in 2012 and currently includes approximately 5.9 million homes and 7.4 million jobs. By 2040, the integrated growth forecast projects that these figures will increase by 3.8 million people, with nearly 1.5 million more homes and 2.4 million more jobs. The 2016–2040 RTP/SCS is the region's transportation and sustainability investment strategy for protecting and enhancing the region's quality of life and economic prosperity through this period. The 2016–2040 RTP/SCS implementation is expected to result in regional benefits to mobility, economy, health and sustainability. The 2016–2040 RTP/SCS is also expected to help California reach its GHG reduction goals, with reductions in per capita transportation emissions of 9 percent by 2020 and 16 percent by 2035.³³ Furthermore, although there are no per capita GHG emission reduction targets for passenger vehicles set by CARB for 2040, the 2016–2040 RTP/SCS GHG emission reduction trajectory shows that more aggressive GHG emission reductions are projected for 2040.³⁴ The 2016–2040 RTP/SCS would result in an estimated 8-percent decrease in per capita GHG emissions by 2020, 18-percent decrease in per capita GHG emissions by 2035, and 21-percent decrease in per capita GHG emissions by 2040. By meeting and exceeding the Senate Bill (SB) 375 targets for 2020 and 2035, as well as achieving an approximately 21-percent decrease in per capita GHG emissions by 2040 (an additional 3-percent reduction in the five years between 2035 [18 percent] and 2040 [21 percent]), the 2016–2040 RTP/SCS is expected to fulfill and exceed its portion of SB 375 compliance with respect to meeting the State's GHG emission reduction goals. As shown in Table IV.E-9, as updated in Section II, Corrections and Additions, of this Final EIR, the Project results in a VMT reduction of

³² *An evaluation of stationary sources is not necessary as the stationary sources emissions will be created by emergency generators which would only be used in an emergency.*

³³ *CARB, Regional Greenhouse Gas Emission Reduction Targets Pursuant to SB 375, Resolution 10-31.*

³⁴ *SCAG, Final 2016–2040, RTP/SCS, April 2016, p. 153.*

approximately 57 percent in comparison to the NIERM scenario and a 52-percent reduction in GHG emissions from mobile sources and would be consistent with the reduction in transportation emission per capita provided in the 2016–2040 RTP/SCS. The Project also would be consistent with the following key GHG reduction strategies in SCAG’s 2016–2040 RTP/SCS, which are based on changing the region’s land use and travel patterns:

- Compact growth in areas accessible to transit;
- Jobs closer to transit;
- New job growth focused in High Quality Transit Areas (HQTA); and
- Biking and walking infrastructure to improve active transportation options, transit access.

The Project represents an infill development that would revitalize the existing site of the SeaPort Marina Hotel by replacing this use with a commercial use within a HQTA, which is defined by the 2016–2040 RTP/SCS as generally walkable transit villages or corridors that are within 0.5 mile of a well-serviced transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours (see Section IV.H, Land Use, of the Draft EIR for further discussion). Please refer to Exhibit 5.1 of the 2016–2040 RTP/SCS.³⁵ As previously discussed, public transit in the Project area is provided by Metro, Orange County Transportation Authority, and Long Beach Transit. The Long Beach Transit operates 10 bus lines in the study area and also provides free Passport shuttle service connecting visitors to and around Downtown Long Beach attractions and destinations. The Orange County Transportation Authority provides three bus lines in the study area. The Metro Blue Line 1st Street Station is located approximately 5 miles east of the Project Site. Refer to Section IV.K, Traffic and Access, of the Draft EIR for more details regarding trip reduction measures. Pursuant to Project Design Feature K-1, the Project also would incorporate characteristics that reduce trips and VMT as compared to standard ITE trip generation rates. In addition, the Project would provide bicycle parking for Project employees and visitors, along with convenient access to public transit and opportunities for walking and biking, all of which would facilitate a reduction in VMT and related vehicular GHG emissions. These and other measures would further promote a reduction in VMT and subsequent reduction in GHG emissions, which would be consistent with the goals of SCAG’s 2016–2040 RTP/SCS.

At the regional level, the 2016–2040 RTP/SCS is an applicable plan adopted for the purpose of reducing GHGs. In order to assess the Project’s potential to conflict with the

³⁵ *Southern California Association of Governments, Final 2016–2040, RTP/SCS, April 2016, p. 77.*

2016–2040 RTP/SCS, this section also analyzes the Project’s land use assumptions for consistency with those utilized by SCAG in its Sustainable Communities Strategy. Generally, projects are considered consistent with the provisions and general policies of applicable City and regional land use plans and regulations, such as SCAG’s RTP/SCS, if they are compatible with the general intent of the plans and would not preclude the attainment of their primary goals. Table IV.E-14 in Section IV.E, Greenhouse Gas Emissions, of the Draft EIR demonstrates the Project’s consistency with the Actions and Strategies set forth in the 2016–2040 RTP/SCS.³⁶ Therefore, the Project would be consistent with the GHG reduction-related actions and strategies contained in the 2016–2040 RTP/SCS.

In sum, the Project is the type of land use development that is encouraged by the RTP/SCS to reduce VMT and expand multi-modal transportation options in order for the region to achieve the GHG reductions from the land use and transportation sectors required by SB 375, which, in turn, advances the state’s long-term climate policies.³⁷ By furthering implementation of SB 375, the Project supports regional land use and transportation GHG reductions consistent with state regulatory requirements.

(c) Sustainable City Action Plan

The Project would be consistent with the City of Long Beach Sustainable City Action Plan. The plan is intended to guide operational, policy and financial decisions to create a more sustainable Long Beach. The Sustainable City Action Plan includes measureable goals and actions that are intended to be challenging, yet realistic. Table IV.E-15 in Section IV.E, Greenhouse Gas Emissions, of the Draft EIR provides a discussion of the Project’s consistency with applicable GHG-reducing actions from the Sustainable City Action Plan. As discussed below, the Project is consistent with the applicable goals and actions of the Sustainable City Action Plan.

(d) Conclusion

In summary, the regulatory compliance analysis provided above demonstrates that the Project’s design, sustainability, site, and land use characteristics comply with or exceed the regulations and reduction actions/strategies applicable to the Project. By furthering implementation of SB 375, the Project supports regional land use and transportation GHG reductions consistent with state regulatory requirements for 2020 and 2035. The Project is

³⁶ As discussed in the 2016–2040 RTP/SCS, the actions and strategies included in the 2016–2040 RTP/SCS remain unchanged from those adopted in the 2012–2035 RTP/SCS.

³⁷ As discussed above, SB 375 legislation links regional planning for housing and transportation with the GHG reduction goals outlined in AB 32.

also consistent with regulations and requirements of the City of Long Beach Sustainable City Action Plan. For these reasons, the Project's GHG emissions are considered less than significant.

(6) Post-2020 Analysis

Recent studies show that the State's existing and proposed regulatory framework put the State on a pathway to reduce its GHG emissions level to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050 if additional appropriate reduction measures are adopted.³⁸ Even though these studies did not provide an exact regulatory and technological roadmap to achieve the 2030 and 2050 goals, they demonstrated that various combinations of policies could allow the statewide emissions level to remain very low through 2050, suggesting that the combination of new technologies and other regulations not analyzed in the studies could allow the State to meet the 2050 target. Subsequent to the findings of these studies, SB 32 was passed on September 8, 2016, which requires the state board to ensure that statewide GHG emissions are reduced to 40 percent below the 1990 level by 2030. The new plan outlined in SB 32 involves increasing renewable energy use, imposing tighter limits on the carbon content of gasoline and diesel fuel, putting more electric cars on the road, improving energy efficiency, and curbing emissions from key industries.

SCAG's RTP/SCS establishes a regulatory framework for achieving GHG reductions from the land use and transportation sectors pursuant to SB 375 and the State's long term climate policies. The RTP/SCS ensures VMT reductions and other measures that to reduce regional emissions from the land use and transportation sector. Specifically, the 2016–2040 RTP/SCS would result in an estimated 8-percent decrease in per capita GHG emissions by 2020, 18-percent decrease in per capita GHG emissions by 2035, and 21-percent decrease in per capita GHG emissions by 2040. By meeting and exceeding the SB 375 targets for 2020 and 2035, as well as achieving an approximately 21-percent decrease in per capita GHG emissions by 2040 (an additional 3-percent reduction in the five years between 2035 [18 percent] and 2040 [21 percent]), the 2016–2040 RTP/SCS is

³⁸ *Energy and Environmental Economics (E3). "Summary of the California State Agencies' PATHWAYS Project: Long-term Greenhouse Gas Reduction Scenarios" (April 2015); Greenblatt, Jeffrey, Energy Policy, "Modeling California Impacts on Greenhouse Gas Emissions" (Vol. 78, pp. 158–172). The California Air Resources Board, California Energy Commission, California Public Utilities Commission, and the California Independent System Operator engaged E3 to evaluate the feasibility and cost of a range of potential 2030 targets along the way to the state's goal of reducing GHG emissions to 80 percent below 1990 levels by 2050. With input from the agencies, E3 developed scenarios that explore the potential pace at which emission reductions can be achieved, as well as the mix of technologies and practices deployed. E3 conducted the analysis using its California PATHWAYS model. Enhanced specifically for this study, the model encompasses the entire California economy with detailed representations of the buildings, industry, transportation and electricity sectors.*

expected to fulfill and exceed its portion of SB 375 compliance with respect to meeting the State's GHG emission reduction goals.

The Project is the type of land use development that is encouraged by the RTP/SCS to reduce VMT and expand multi-modal transportation options in order for the region to achieve the GHG reductions from the land use and transportation sectors required by SB 375, which, in turn, advances the State's long-term climate policies. By furthering implementation of SB 375, the Project would support regional land use and transportation GHG reductions consistent with state climate targets for 2020 and beyond 2020.

Thus, given the Project's consistency with state, SCAG, and City of Long Beach GHG emission reduction goals and objectives, the Project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. In the absence of adopted standards and established significance thresholds, and given this consistency, it is concluded that the Project's impacts are not cumulatively considerable.

b. Cumulative Impacts

As explained above, the analysis of a project's GHG emissions is inherently cumulative in nature because climate change is a global problem and the emissions from any single project are typically negligible. Accordingly, the analysis above takes into account the potential for the Project to contribute to the cumulative impact of global climate change. Table IV.E-12, as updated in Section II, Corrections and Additions, of this Final EIR, illustrates that implementation of the Project's design, sustainability, site, and land use characteristics, combined with compliance with regulatory requirements, including state mandates, would contribute to GHG reductions.

The analysis shows that the Project is consistent with RTP/SCS regulatory requirements to reduce regional GHG emissions from the land use and transportation sectors by 2020 and 2035. The Project is also consistent with CARB's Climate Change Scoping Plan, particularly its emphasis on the identification of emission reduction opportunities that promote economic growth while achieving greater energy efficiency and accelerating the transition to a low-carbon economy. In addition, the Project would comply with the Sustainable City Action Plan, which emphasizes improving energy conservation and energy efficiency, increasing renewable energy generation, and changing transportation and land use patterns to reduce auto dependence. Furthermore, the Project's net GHG emissions are below the 2008 draft screening level from the SCAQMD. For these reasons, the Project's cumulative contribution to global climate change would be less than significant.

c. Project Design Features

As discussed in Section II, Project Description, of the Draft EIR, the Project incorporates features to support and promote environmental sustainability. “Green” principles have been incorporated in the Project to comply with the City of Long Beach Green Building Ordinance (Ordinance No. ORD-09-0013) and the sustainability intent of the U.S. Green Building Council’s LEED® program at the Certified level (or equivalent). These include energy conservation, transportation, waste reduction, and other related measures, as detailed below.

Energy Measures

- Shield exterior fixtures to limit light pollution and glare.
- Commission all building envelope and energy consuming systems to ensure efficient operations and reduce both operational and maintenance costs.
- Meet or exceed Title 24, Part 6, California Energy Code baseline standard requirements for energy efficiency, based on the 2016 Energy Efficiency Standards requirements.

Transportation Measures

- Provide bike parking on-site to reduce vehicle trips.
- Provide preferred parking for clean air, van pools, and fuel efficiency vehicles to encourage clean air vehicle use.
- Provide pre-wiring for electric vehicles in parking spaces on-site as required by the Green Building Standards Code (LBMC Chapter 18.47). (Refer to Project Design Features E-2 and E-3 for details.)

Construction Materials

- Recycle or otherwise divert from landfills a minimum of 65 percent of construction waste generated on-site.
- Utilize finishing materials such as paints, primers, sealants, and other materials that emit low quantities of volatile organic compounds and/or other air quality pollutants.
- Utilize panelized wood products that have low levels of formaldehyde.

- Utilize carpet and hard flooring that has low VOC content and/or is composed of recycled products.

Indoor Air Quality and Durability

- Weather protect all exterior entrances to improve the long-term durability of buildings.
- Require third-party testing to ensure that energy systems are installed and functioning as intended.
- Ensure tight ductwork in air conditioning systems to improve comfort and reduce energy costs.
- Utilize bathroom fan systems that either operate continuously or have humidistats to automatically remove moisture and minimize mold growth.

Water Measures

- Install water conserving fixtures that reduce water use by at least 20 percent.
- Install weather-based irrigation controllers.

In addition, the following specific measures have been included to reduce GHG emissions:

Project Design Feature E-1: The design of new buildings shall incorporate features of the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED®) program to be capable of meeting the standards of LEED® Certified or equivalent green building standards. Specific sustainability features integrated into the Project design to enable the Project to achieve the LEED® Certified level shall include, but are not limited to, the following:

- The Project's design shall make use of passive solar energy through appropriate building orientation and landscaping; minimizing heating during cool seasons and solar heat gain during hot seasons; and enhancing natural ventilation by taking advantage of prevailing winds.
- Utilize a paint and surface color palette that emphasizes light and off-white colors that reflect heat away from buildings.
- Provide education regarding energy efficiency to tenants, employees, and customers. Provide information on energy management services for large energy users.

- Provide energy storage where appropriate to optimize renewable energy generation systems and avoid peak energy use.
- Increase insulation such that heat transfer and thermal bridging is minimized.
- Limit air leakage through the structures and/or within the heating and cooling distribution system(s).
- Install energy-efficient space heating and cooling equipment.
- Install electrical hook-ups at loading dock areas.
- Install dual-paned or other energy efficient windows.
- Install automatic devices to turn off lights when they are not needed.

Project Design Feature E-2: Upon buildout of the Project, at least 25 percent of the total code-required parking spaces provided for all types of parking facilities shall be capable of supporting future electric vehicle supply equipment (EVSE). Plans shall indicate the proposed type and location(s) of EVSE and also include raceway method(s), wiring schematics and electrical calculations to verify that the electrical system has sufficient capacity to simultaneously charge all electric vehicles at all designated EV charging locations at their full rated amperage. Plan design shall be based upon Level 2 or greater EVSE at its maximum operating capacity. Only raceways and related components are required to be installed at the time of construction. A label stating “EV CAPABLE” shall be posted in a conspicuous place at the service panel or subpanel and next to the raceway termination point.

Project Design Feature E-3: Upon buildout of the Project, at least 5 percent of the total code-required parking spaces shall be equipped with EV charging stations and/or outlets for plugin. Plans shall indicate the proposed type and location(s) of charging stations. Plan design for charging stations shall be based on Level 2 or greater EVSE at its maximum operating capacity.

d. Mitigation Measures

With implementation of the Project’s design, sustainability, site, and land use characteristics, combined with compliance with project design features and regulatory requirements, including those discussed above, impacts related to GHG emissions would be less than significant. Nonetheless, the following mitigation measure would be incorporated into the Project to further reduce GHG emissions:

Mitigation Measure E-1: Upon buildout of the Project, the Project shall provide a minimum of 250 kilowatts of photovoltaic panels on the Project Site.

e. Level of Significance After Mitigation

Project impacts related to GHG emissions would be less than significant. The proposed mitigation measure would further reduce such impacts by 96 MTCO_{2e} per year.

F. Hazards and Hazardous Materials

a. Analysis of Project Impacts

(1) Construction Impacts

(a) Hazardous Materials Use and Storage

During Project construction activities, fuel and oils associated with construction equipment, as well as coatings, paints, adhesives, and caustic or acidic cleaners could be used, handled, and stored on the Project Site. The use, handling, and storage of these materials could increase the opportunity for hazardous materials releases and, subsequently, the exposure of people and the environment to hazardous materials. However, all potentially hazardous materials would be used and stored in accordance with manufacturers' instructions. In addition, as described in the Regulatory Framework subsection above, numerous laws and regulations establish specific guidelines regarding risk planning and accident prevention, protection from exposure to specific chemicals, and the proper storage of hazardous materials. Therefore, compliance with all applicable federal, state, and local requirements concerning the use, storage, and management of hazardous materials would effectively reduce the potential for Project construction activities to expose people to a substantial risk resulting from the release of a hazardous material or from exposure to hazardous materials in excess of regulatory standards. Therefore, impacts associated with the use, storage, and management of hazardous materials during construction would be less than significant, and no mitigation measures are required.

(b) Hazardous Waste Generation, Handling, and Disposal

Demolition of the existing buildings, removal of structures and construction debris, and grading of the Project Site would involve the use, handling, and disposal of hazardous materials such as fuels, paints, solvents, and concrete additives that would require proper management and, in some cases, disposal. However, Project construction would occur in compliance with all applicable federal, state, and local requirements concerning the handling and disposal of hazardous waste. With compliance with relevant regulations and requirements, Project construction activities would not expose people to a substantial risk

resulting from the release of a hazardous material or from exposure to a health hazard. Therefore, impacts associated with hazardous waste management during construction would be less than significant, and no mitigation measures are required.

(c) Soil and Groundwater Contamination

Soil, oil vapor, and groundwater within portions of the Project Site have been previously impacted by the release of hazardous materials associated with past uses. More specifically, the leaking underground storage tank (LUST) database indicates the Project Site is currently open for remediation, and the results of the Phase II ESA indicate elevated concentrations of petroleum hydrocarbons, benzene, and ethylbenzene are still present in on-site soils as a result of this case.

The site of the former gas station at 6280 East 2nd Street (on-site) is currently an open remediation site under the oversight of the Regional Water Quality Control Board (RWQCB) (Case #908030052). In 2009, an Interim Remedial Action Plan was prepared for the former gas service station site. Preliminary remediation activities took place between April 5 and April 7, 2011 and included excavation of gasoline contaminated soil and confirmation sampling upon removal to verify the site met cleanup criteria. The goal of these remediation activities was to remove all contaminated soil in order to obtain regulatory closure for future land use. A total of 41 pounds of impacted soil were removed from the Project Site, and subsequent groundwater sampling indicated there was a general decrease in TPH-g and MTBE. All contaminated soils removed as part of the preliminary remediation activities were transported and disposed of in accordance with applicable laws and regulations. Remediation of the site is still considered an open case with ongoing remediation, and when complete with closure certified by the RWQCB, the former gas station site is not anticipated to represent a hazard to the Project.

As described in Section II, Project Description, of the Draft EIR, an estimated 7,582 cubic yards of soil would be removed, of which an estimated 6,688 cubic yards would be reused on-site, for a net export volume of 894 cubic yards.³⁹ Although grading and excavation of the Project Site would be limited, the potential to encounter petroleum hydrocarbon contamination could occur. Therefore, construction-related earthmoving activities could expose construction workers and the public to contaminants associated with petroleum hydrocarbons, VOCs, and soil gases from previous uses on the Project Site, the Exxon Mobil gas station located across Pacific Coast Highway, and potentially from activities associated with former oil production on-site. This could pose a hazard to the public or the environment through the release of hazardous materials into the environment

³⁹ *An additional estimated 651 cubic yards of export related to soil remediation could occur. Final earthwork numbers may change based on soil conditions.*

and could result in a potentially significant impact. In addition, groundwater and soil vapor contamination have been identified near the 8-inch petroleum pipeline along the eastern edge of the Project Site, which indicates the potential to encounter impacted soil in the pipeline right-of-way. If contaminated soil is encountered and disturbed, construction workers and the public could be exposed to potential safety and health risks during construction of the Project. As such, impacts associated with contaminated soil near the pipeline could be potentially significant.

Mitigation Measures F-1 through F-8, detailed below, require a variety of site surveys, screenings, and remediation activities to reduce potential impacts related on-site contamination to less than significant levels. Implementation of these measures would reduce potential impacts to less than significant levels.

(d) Underground and Aboveground Storage Tanks

There are not currently any active underground storage tanks (USTs) or aboveground storage tanks (ASTs) on-site. However, multiple USTs have been located on the Project Site in the past, and the site is listed in multiple databases as a LUST site. As a result of the LUST case, various chemical compounds associated with gas stations have been identified in on-site soils, groundwater, and soil vapor. Additionally, the contamination plume from a LUST site across Pacific Coast Highway has moved in the direction of the Project Site. Refer to the discussion above regarding the potentially significant impacts related to the on- and off-site contamination associated with the LUST case. As discussed above, remediation of the on-site LUST case is currently underway.

As noted above, the Project would include limited grading, and excavation to a maximum depth of approximately 11.5 feet would be required for the proposed building foundations. These shallow excavations are not anticipated to encounter any UST or AST, and as such, impacts would be less than significant. Nonetheless, a geophysical survey of the Project Site would be conducted per Mitigation Measure F-2 to locate potential subsurface features or anomalies, including USTs. If discovered, any existing USTs or ASTs located within the grading footprint would be properly abandoned and removed in accordance with all applicable laws and regulations, thus reducing any potential impact to a less than significant level.

(e) Asbestos-Containing Materials

Based on the age of the existing on-site structures, building components may contain hazardous building materials such as asbestos-containing materials (ACMs), which would pose an environmental risk to construction workers and the public in the event the materials are released into the environment during demolition and site clearing activities.

Given the likely presence of ACMs within the Project Site, demolition could result in a potentially significant impact.

The Project would comply with all applicable federal, state, and local regulations regarding ACMs, including SCAQMD Rule 1403, which requires that ACMs be removed by a certified asbestos containment contractor in accordance with applicable regulations. Furthermore, Mitigation Measure F-9 would require a comprehensive asbestos survey prior to demolition, subject to approval by the Development Services Department. Therefore, with adherence to applicable regulations and implementation of mitigation, impacts associated with asbestos-containing materials would be reduced to a less than significant level.

(f) Lead-Based Paint

As discussed above, based on the age of the existing on-site structures, building components may contain hazardous building materials, such as lead-based paints, which would pose an environmental risk to construction workers and the public in the event the materials are released into the environment during demolition and site clearing activities. Any release of such hazardous materials would result in a potentially significant impact.

However, implementation of Mitigation Measure F-9 would require a comprehensive lead-based paint survey prior to demolition. In the event lead-based paint is found within areas proposed for demolition, suspect materials would be removed and disposed of in accordance with procedural requirements and regulations. Therefore, with implementation of mitigation, impacts related to lead-based paint would be reduced to a less than significant level.

(g) Polychlorinated Biphenyls

The three transformers located on-site are unlikely to contain polychlorinated biphenyls (PCBs). However, fluorescent light ballasts on-site may contain PCBs. Any fluorescent light ballast that do not include the statement "No PCBs" would be disposed of as PCB-containing waste in accordance with all applicable regulations, including those contained in the federal Toxic Substances Control Act (TSCA) per the USEPA. In addition, in accordance with applicable federal, state, and local regulations, the design, construction, and maintenance of new development associated with the Project would not include features that would use or expose persons to PCBs. Therefore, impacts associated with PCBs would be less than significant, and no mitigation measures are required.

(h) Abandoned On-Site Wells

Six reported abandoned oil wells were identified at the Project Site, and previously unidentified wells also could be located on-site. Based on a review of well records, these wells do not appear to have been abandoned in accordance with current standards. However, as noted above, reabandonment of the known on-site oil wells is currently underway under the supervision of California State Division of Oil, Gas and Geothermal Resources (DOGGR). As such, these wells are not anticipated to represent a hazard to the Project. Other potential hazards associated with known and possible unknown oil wells include the sudden release of methane gas from a well that is disturbed during construction.

Mitigation Measure F-2 would require a geophysical survey to locate subsurface features or anomalies, including any previously unidentified oil wells. If previously unidentified oil wells are encountered, they would be properly abandoned in accordance with all applicable laws and regulations under the supervision of DOGGR, thus reducing any potential impact to a less than significant level.

Although no soil or groundwater contamination associated with on-site oil wells was identified during the course of the Phase II ESA, the on-site wells may have resulted in the release of hazardous materials that could be encountered during construction-related activities on the Project Site. Mitigation Measures F-1 through F-8 would reduce potential impacts associated with the release of hazardous materials during construction to less than significant levels.

(2) Operation Impacts

(a) Hazardous Materials Use and Storage

Operation of the Project would involve the limited use of potentially hazardous materials typical of those used in commercial developments, including cleaning agents, paints, pesticides, and other materials used for landscaping. All potentially hazardous materials would be used, stored, and disposed of in accordance with manufacturers' specifications and handled in compliance with applicable standards and regulations. Any risks associated with these materials would be adequately reduced to a less than significant level through compliance with these standards and regulations. Therefore, as the Project would comply with applicable regulations and would not expose persons to substantial risk resulting from the release of hazardous materials or exposure to health hazards in excess of regulatory standards, impacts associated with the use of these hazardous substances during operation of the Project would be less than significant, and no mitigation measures are required.

(b) Hazardous Waste Generation, Handling, and Disposal

Project operation would involve the limited use of potentially hazardous materials typical of those used in commercial developments. As is the case under existing conditions, activities involving the handling and disposal of hazardous wastes on-site would occur in compliance with all applicable federal, state, and local requirements. Hazardous wastes would be properly stored and conveyed to licensed waste treatment, disposal, or recycling facilities. Therefore, with compliance with relevant regulations and requirements, operational activities would not expose people to a substantial risk resulting from the release of a hazardous material or from exposure to a health hazard. Potential impacts associated with hazardous waste generation, handling, and disposal during Project operation would be less than significant.

(c) Soil and Groundwater Contamination

Relative to the existing contamination on-site, a certificate of occupancy would not be issued for the Project without adequate remediation as confirmed by relevant regulatory agencies (e.g., the LARWQCB). Therefore, the Project could not operate without remediation of on-site contamination. However, in the event that elevated concentrations of residual VOCs persist in on-site soils post-construction, long-term vapor mitigation may be implemented per Mitigation Measure F-4, if determined necessary, prior to site occupancy to reduce soil vapor exposure to site users to acceptable levels in accordance with Department of Toxic Substances Control (DTSC) and the California Environmental Protection Agency (CalEPA) regulations. As such, with implementation of mitigation, potential impacts would be reduced to less than significant levels.

(d) Underground and Aboveground Storage Tanks

Most hazardous substances used in conjunction with Project operations would be stored in small, above ground containers and, where necessary, within appropriate enclosures, subject to relevant permitting requirements. Project plans are not anticipated to involve the construction or installation of underground storage facilities for hazardous materials. Thus, operational impacts associated with USTs and ASTs would be less than significant.

(e) Asbestos-Containing Materials

Development of the Project would include the use of commercially sold construction materials that would not include asbestos or asbestos-containing materials. Furthermore, any existing ACMs on the Project Site would be removed in accordance with applicable federal, state, and local regulations prior to demolition. Therefore, Project operation would not increase the occurrence of friable asbestos or ACM at the Project Site, nor

would it expose people to substantial risk resulting from the release of a hazardous material or from exposure to a health hazard. Thus, operational impacts associated with asbestos-containing materials would be less than significant, and no mitigation measures are required.

(f) Lead-Based Paint

Development of the Project would include the use of commercially sold construction materials that would not include lead-based paint. Furthermore, as with ACMs, any existing lead-containing products currently on the Project Site would be removed and disposed of in accordance with procedural requirements during construction. Therefore, Project operation would not expose persons to lead-based paint, and, as such, would not expose people to substantial risk resulting from the release of a hazardous material or from exposure to a health hazard. Thus, impacts associated with lead-based paint during Project operation would be less than significant, and no mitigation measures are required.

(g) Polychlorinated Biphenyls

In accordance with existing regulations, the new electrical systems to be installed as part of the Project would not contain PCBs, and the maintenance of such electrical systems would not expose people to PCBs. In addition, the Project Applicant would comply with applicable laws regulating PCBs. As such, Project operation would not expose people to a substantial risk resulting from the release of a hazardous material or from exposure to a health hazard. Therefore, operational impacts related to PCBs would be less than significant, and no mitigation measures are required.

(h) Abandoned On-Site Oil Wells

As noted above, reabandonment of the known on-site oil wells is currently underway under the supervision of DOGGR. Any previously unknown on-site oil wells also would be abandoned pursuant to these requirements, and if necessary, methane abatement would be developed in conjunction with DOGGR's review. Therefore, any potential impacts associated with on-site oil wells would be reduced to a less than significant level. As such, Project operation would not expose people to a substantial risk or health hazard related to oil wells. Impacts associated with abandoned on-site oil wells during Project operation would be less than significant, and no mitigation measures are required.

b. Cumulative Impacts

Construction of the Project in combination with the related projects described in Section III, Environmental Setting, of the Draft EIR, would have the potential to increase the risk for accidental releases of hazardous materials. Similar to the Project, each related

project would be required to evaluate potential threats to public safety, including those associated with the generation, use, handling, storage, and/or disposal of hazardous materials, asbestos-containing materials, lead-based paint, polychlorinated biphenyls, and oil and gas. The related projects also would be required to comply with all applicable local, state, and federal laws, rules, and regulations pertaining to hazards and hazardous materials. As environmental safety issues are largely site-specific, this evaluation would occur on a case-by-case basis for each individual project. Therefore, with full compliance with all applicable local, state, and federal laws, rules and regulations, and appropriate mitigation as necessary, cumulative impacts would be less than significant.

c. Project Design Features

No specific project design features are proposed with regard to hazards and hazardous materials.

d. Mitigation Measures

Mitigation Measure F-1: Soil Management Plan. Prior to the start of construction, the Project Applicant shall prepare a Project-specific Soil Management Plan that shall be reviewed and approved by the City of Long Beach before construction can commence. The Soil Management Plan shall incorporate, but shall not be limited to, the following: (1) Geophysical Survey; (2) Soil Vapor Survey/Health Risk Screening; (3) Soil Transportation Plan; and (4) fugitive dust control measures. The Soil Management Plan shall incorporate methodologies for detecting the various environmental concerns noted in relevant hazardous materials investigations during the construction phase of the Project. The Soil Management Plan shall include measures to address each environmental concern, if encountered, according to the applicable regulatory standards and the mitigation measures contained herein. In addition, the Soil Management Plan shall require notification and reporting, according to protocols of applicable local and state regulatory agencies, including the Department of Toxic Substances Control, the Regional Water Quality Control Board, CalRecycle, California State Division of Oil, Gas and Geothermal Resources, Long Beach Fire Department, and the City of Long Beach.

Mitigation Measure F-2: Geophysical Survey. Prior to subsurface disturbance and demolition activities, the Project Applicant shall conduct a geophysical survey to locate subsurface features or anomalies, if any, that may pose an environmental concern or present a risk of upset at the Project Site. The geophysical survey shall inform the site construction and remediation activities so as to remove or avoid

subsurface hazardous materials or associated facilities. The results of the geophysical survey shall be included in the Soil Management Plan, and reviewed and approved by the City of Long Beach. The geophysical survey shall:

- (1) Accurately locate and mark the oil pipeline located along the northeast border of the Project Site;
- (2) Attempt to detect the presence of the subsurface anomalies, if any, such as underground vaults/features, buried debris, historical dump sites, previously unidentified oil wells, waste drums, or tanks.

Mitigation Measure F-3: Soil Vapor Survey. Prior to construction, the Project Applicant shall conduct a systematic soil vapor survey of the Project Site to investigate the possible presence of volatile organic compounds in site soils. The soil vapor survey shall be performed according to the applicable standards of the Department of Toxic Substances Control and the California Environmental Protection Agency. Soil borings shall be placed at a depth of at least five (5) feet below the deepest excavation to occur during construction and soil vapor samples shall be collected at 5 to 10 foot intervals. Soil samples shall be collected at a five (5) foot interval from the soil borings to assess the soil for heavier petroleum hydrocarbons that may be present due to past oil field use of the Project Site. The Soil Vapor Survey shall include, at a minimum, the following:

- (1) Evaluation of methane concentrations to a depth of at least five (5) feet below the deepest excavation to occur during site construction. These soil vapor boring shall be placed in the vicinity of any abandoned oil wells located during the geophysical survey; and
- (2) Additional soil vapor borings to test for volatile organic compounds on and in the vicinity of the land area where the former on-site gas station was located and in locations where the off-site gas station may have impacted the Project Site through lateral migration of soil vapors.

Mitigation Measure F-4: Health Risk Screening. At the completion of the soil vapor survey, a qualified environmental professional shall use the results of the survey to develop a health risk screening that assesses health and safety concerns associated with volatile organic compound levels at the site for construction workers and future site users. The health risk screening assessment shall be performed according to the applicable standards of the Department of Toxic Substances Control and California Environmental Protection Agency.

In the event the health risk screening assessment indicates that elevated volatile organic compound levels in the soils pose a health

risk to site users, the Project Applicant shall further define and implement additional measures to minimize soil vapor exposure to acceptable levels as established by the applicable regulatory agency. Measures to be implemented shall include, but is not limited to, the following:

- (1) During Construction: Volatile organic compound levels shall be monitored in accordance with the South Coast Air Quality Management District Rule 1166, which requires volatile organic compound monitoring of petroleum-impacted soils during construction activities. In the event volatile organic compound concentrations exceed threshold levels specified in Rule 1166, vapor suppression measures shall be required by amending soil with water or chemical foam. Volatile organic compound impacted soils shall be stockpiled and covered in accordance with Rule 1166. Rule 1166 compliance requirements shall be included in the Soil Management Plan; and
- (2) Post Construction: In the event elevated concentrations of volatile organic compounds persist in site soils post-construction, vapor mitigation shall be performed prior to site occupancy to protect future site users. Post-construction long-term vapor mitigation measures selected shall be determined based on the remaining extent of volatile organic compound concentrations and the associated health risk, if any. Mitigation measures associated with post-construction volatile organic compounds control shall include, but is not limited to, the following:
 - (i) Soil Vapor Extraction: Use of a soil vapor extraction system to remove residual volatile organic compounds from the soil. The soil vapor extraction system shall be employed to remediate soil vapor to a level considered safe for uses proposed on the Project Site; and
 - (ii) Vapor Barrier/Sub-slab Depressurization: In the event the soil vapor survey indicates extremely high volatile organic compounds present at the Project Site and results in an elevated human health risk, a vapor barrier and sub-slab depressurization system shall be designed and implemented for the proposed buildings to be constructed at the Project Site.

Mitigation Measure F-5: Pre-Construction Removal Action. Prior to construction, the Applicant shall perform pre-construction removal activities, including sampling, as necessary, to characterize waste, removal action, off-site disposal of characterized waste, and confirmation sampling of removal areas. Pre-construction removal actions shall include the following:

Removal of Debris and Dirt from the Satellite Enclosure: Prior to site construction, debris and dirt located in a satellite enclosure on the southern portion of the Project Site shall be removed. Following removal, representative soil samples from the debris and dirt shall be collected for laboratory analysis to characterize the waste for off-site disposal purposes. Based on the laboratory analysis and waste characterization, the soil and debris shall be disposed of at an appropriate facility.

Mitigation Measure F-6: Oil Sumps and Mud Pits. In the event any suspected oil sumps, mud pits, or areas of dark stained soils are identified, these areas shall be added to the site plans included in the Soil Management Plan. The areas shall be excavated and the soil stockpiled on plastic sheeting at the Project Site. The stockpiled soil shall be sampled and laboratory-analyzed in accordance with requirements outlined in the Soil Management Plan and pursuant to the applicable Department of Toxic Substance Control guidelines. The stockpiled soil shall be characterized in accordance with the laboratory analysis and disposed of at a facility that is licensed to accept the soil based on established site action levels.

Mitigation Measure F-7: Soil Transportation Plan. Prior to construction, the Applicant shall develop a Soil Transportation Plan in compliance with State of California and federal Department of Transportation requirements for the safe and legal transport to an off-site disposal facility for hazardous materials that may be encountered during construction activities.

Mitigation Measure F-8: In accordance with SCAQMD Rule 403, the Project shall incorporate fugitive dust control measures at least as effective as the following measures:

- Use watering to control dust generation during the demolition of structures;
- Use of watering and/or street sweeping for on-site paved roads used for construction activities;
- Clean-up mud and dirt carried onto paved streets from the site;
- Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site;
- All haul trucks would be covered or would maintain at least 6 inches of freeboard;
- Suspend earthmoving operations or additional watering would be implemented to meet Rule 403 criteria if wind gusts exceed 25 mph; and

- An information sign shall be posted at the entrance to the 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. A construction relations officer shall be appointed to act as a community liaison concerning on-site activity, including investigation and resolution of issues related to fugitive dust generation

Mitigation Measure F-9: Asbestos and Lead-Based Paint Abatement. Prior to demolition activities, a qualified contractor shall perform an asbestos-containing materials and lead-based paint- survey. The qualified contractor shall sufficiently abate the structure(s) to be demolished on the Project Site according to applicable and current local, state, and federal guidelines.

e. Level of Significance After Mitigation

The Project would result in less than significant construction-related impacts related to the use, storage, and management of hazardous materials; hazardous waste management; USTs and ASTs; and PCBs. Operational impacts also would be less than significant. However, prior to mitigation, the Project would result in potentially significant impacts related to soil and groundwater contamination, ACMs, lead-based paint, and the existing petroleum pipeline on-site. Implementation of Mitigation Measures F-1 through F-9 would reduce these impacts to less than significant levels. Mitigation Measure F-4 would also reduce the potential for residual post-construction impacts associated with contaminated soils. Therefore, impacts after mitigation would be less than significant.

G. Hydrology and Water Quality

a. Analysis of Project Impacts

(1) Construction Impacts

(a) Surface Water Hydrology

Project construction activities would include demolition of the existing SeaPort Marina Hotel and associated hardscape and landscape around the structures. These activities have the potential to temporarily alter existing surface drainage patterns and flows on-site by exposing the underlying soils, making the Project Site temporarily more permeable, and diverting existing surface flows. In accordance with the requirements of the Construction General Permit and based on implementation of Project Design Feature G-1, the Project would implement a Stormwater Pollution Prevention Plan (SWPPP) that would specify best management practices (BMPs) and erosion control measures to be

used during construction to manage runoff flows. BMPs would be designed to reduce runoff during construction to the maximum extent feasible. In addition, the Applicant would be required to comply with all applicable City grading permit regulations, including implementation of appropriate measures, plans, and inspections to reduce sedimentation and erosion. Furthermore, BMPs such as sandbag barriers, earthen drainage dikes, swales, and/or sediment traps during construction would help ensure that existing drainage patterns are maintained. Thus, through compliance with all National Pollutant Discharge Elimination System (NPDES) Construction General Permit requirements, including the preparation and implementation of a SWPPP, implementation of BMPs, and compliance with applicable City grading regulations, construction of the Project would not: (1) substantially alter the existing drainage patterns within the Project Site or surrounding area in a manner that would result in substantial erosion or siltation on- or off-site; (2) substantially increase the rate or amount of surface runoff in a manner that would result in flooding; or (3) create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems.

Based on the above, impacts to surface water hydrology during construction would be less than significant.

(b) Surface Water Quality

Construction activities such as earth moving, maintenance/operation of construction equipment, and the handling, storage, and disposal of construction materials could contribute to pollutant loading in stormwater runoff. On-site watering activities to reduce airborne dust also could contribute to pollutant loading in runoff. The main pollutant of concern during construction would be sediment or soil particles that could become detached by water and wind. However, as the construction site would be greater than 1 acre, Project construction activities would be regulated by the NPDES Construction General Permit. In accordance with the requirements of the Construction General Permit and per Project Design Feature G-1, the Project Applicant would prepare and implement a SWPPP that would specify BMPs to target pollutants of concern and reduce or eliminate pollutants in stormwater discharges.

Through compliance with NPDES requirements and local regulations, including the implementation of BMPs, construction of the Project would not result in discharges that would: (1) violate any water quality standards or waste discharge requirements; (2) create or contribute runoff water that would provide substantial additional sources of polluted runoff; or (3) otherwise substantially degrade water quality. As such, construction-related impacts to surface water quality would be less than significant.

(c) Groundwater Hydrology

The Project Site currently consists of 78 percent impervious surfaces. However, historic high groundwater is relatively close to the surface (within 10 feet) and subject to rainfall and tidal influence due to its proximity to Alamitos Bay and the Pacific Ocean. The Project Site is not located in an aquifer recharge area, and there are no groundwater wells or pumping activities within the Project Site. Therefore, construction activities are not anticipated to interfere with groundwater recharge or production.

Groundwater was encountered at depths of 15 and 18.5 feet below ground surface in borings completed as part of the Project's geotechnical investigation. While this is deeper than historic levels, as noted above, groundwater under the Project Site is subject to rainfall and tidal influences, so the level can be variable. Additionally, the Project would include excavations to a maximum depth of approximately 11.5 feet below ground surface for building footings and foundations. As such, temporary dewatering may be required within the Project Site in the event excavation for building footings encounters groundwater, as well as for on-site mainline storm drain relocation. Any temporary dewatering system(s) would extract, treat, and discharge groundwater to the public storm drain system, as authorized by a General NPDES Permit issued by the LARWQCB and a storm drain connection permit issued by the jurisdictional storm drain agency. Any discharge of groundwater during construction of the Project would occur pursuant to, and comply with, the applicable permit requirements of the General NPDES Permit. Therefore, if dewatering is necessary, operation of the temporary system would not be anticipated to adversely impact the flow rate or direction of groundwater. Furthermore, as noted above, the Project Site is not located within an aquifer recharge area. Therefore, Project construction would not change potable water levels sufficiently to reduce the ability of a water utility to use the groundwater basin for public water supplies, reduce yields in adjacent wells, deplete groundwater supplies, result in a demonstrable and sustained reduction of groundwater recharge capacity, or interfere with groundwater recharge. As such, impacts would be less than significant, and no mitigation measures are required.

(d) Groundwater Quality

As discussed above, the Project would include excavations at a maximum depth of 11.5 feet below ground surface for building footings and foundations, and the Project would also result in a net export of soil materials.

As discussed further in Section IV.F, Hazards and Hazardous Materials, of the Draft EIR, a groundwater remediation program is currently being implemented on the Project Site under the oversight of the LARWQCB to address existing contamination associated with historic gas station operations both on- and off-site. Upon completion of remedial activities to the satisfaction of the LARWQCB, this contamination will no longer be

considered a threat to groundwater quality, and no further impacts to local groundwater resources would occur.

As noted above, although unlikely, temporary dewatering may be required during construction. However, discharges from any temporary dewatering system would be subject to NPDES permit requirements and, therefore, would not result in increased groundwater contamination.

During on-site grading and building construction, hazardous materials, such as fuels, paints, solvents, and concrete additives, could be used and would therefore require proper management and, in some cases, disposal. The management of any resultant hazardous wastes could increase the opportunity for hazardous materials releases into groundwater. Compliance with all applicable federal, state, and local requirements concerning the handling, storage, and disposal of hazardous waste would reduce the potential for Project construction to release contaminants into groundwater, expand the area or increase the level of groundwater contamination, or cause a violation of regulatory water quality standards at an existing production well. Further, as there are no groundwater production wells or public water supply wells within 1 mile of the Project Site, construction activities would not be anticipated to affect existing wells. Therefore, the Project would not result in any substantial increase in groundwater contamination through hazardous materials releases, and impacts on groundwater quality would be less than significant.

(2) Operational Impacts

(a) Surface Water Hydrology

The Project Site is currently comprised of approximately 78 percent impervious surfaces, consisting of the SeaPort Marina Hotel, internal driveways, and parking areas. Pervious surfaces on-site consist of landscaped areas primarily located around the hotel structures and the perimeter of the Project Site. The Project would include the development of new buildings, paved areas, and landscaped areas. With implementation of the Project, the amount of impervious surfaces would increase to approximately 85 percent.

Runoff flows for each of the on-site and off-site drainage subareas during a 50-year, 24-hour storm event under post-Project conditions are summarized in Table IV.G-2 in Section IV.G, Hydrology and Water Quality, of the Draft EIR. Figure IV.G-2 in Section IV.G, Hydrology and Water Quality, of the Draft EIR shows the post-Project boundaries of the nine on-site drainage subareas and eight off-site drainage subareas that would make up the Project Site's tributary watershed under post-Project conditions, along with the proposed alignment of the relocated 36-inch storm drain segment.

As shown in Table IV.G-1 in Section IV.G, Hydrology and Water Quality, of the Draft EIR, under existing conditions runoff from the on-site drainage subareas has a total flow rate of approximately 16.45 cubic feet per second (cfs) and a flow volume of 3.14 acre-feet (af). As shown in Table IV.G-2, the flow rate from the on-site drainage subareas during a 50-year storm event would increase to 18.41 cfs, with a corresponding increase in flow volume to 3.35 af. Given that the 15-inch lateral in Marina Drive exceeds capacity under existing conditions, the Project would increase the area draining to the 36-inch storm drain that traverses the Project Site. Under post-Project conditions, the area draining to the 36-inch storm drain would increase from 15.26 acres to 15.75 acres, and the peak flow rate would increase from 24.12 cfs to 25.40 cfs during a 50-year storm. The 36-inch storm drain would have sufficient capacity to handle this increase in flow rate of 1.28 cfs, and the 24- and 30-inch laterals in PCH would continue to have sufficient capacity under post-development conditions. The area draining to the 15-inch lateral in Marina Drive would decrease from 8.44 acres to 7.67 acres, and peak flow rates would decrease from 10.75 cfs to 10.32 cfs.

With respect to drainage improvements, as described in the Drainage Report included in Appendix L of the Draft EIR and as illustrated in Figure IV.G-2 in Section IV.G, Hydrology and Water Quality, of the Draft EIR, the portion of the existing 36-inch storm drain located within the Project Site would be relocated to accommodate the proposed buildings. The existing storm drains along PCH would remain and connect to the relocated 36-inch storm drain segment, and the existing storm drain infrastructure at Marina Drive also would remain, although on-site drainage patterns would be altered slightly to minimize exacerbating conditions in the 15-inch Marina Drive lateral. Overall on-site drainage patterns would be similar to existing conditions. Additionally, the on-site stormwater conveyance system would be adequately sized to prevent flooding and nuisance water within the Project Site. As described in Project Design Feature G-2, as part of the Standard Urban Stormwater Mitigation Plan (SUSMP) for the Project, operational phase stormwater runoff would be managed via implementation of bio-filtration, retention, and treatment BMPs in the form of flow-through planters. Proposed roof drains, also described in Project Design Feature G-2, would collect roof runoff from the new buildings and parking structures and connect to the storm drain system.

Based on the above, through compliance with all NPDES requirements, including implementation of the SUSMP and associated BMPs, as well as installation of necessary stormwater infrastructure improvements, the Project would not: (1) substantially alter existing drainage patterns within the Project Site and surrounding area in a manner that would result in substantial erosion or siltation on- or off-site; (2) substantially increase the rate or amount of surface runoff in a manner that would result in flooding; or (3) create or contribute runoff water that would exceed the capacity of existing or planned stormwater

drainage systems. As such, impacts on surface water hydrology during operation of the Project would be less than significant.

(b) Surface Water Quality

As is typical of most urban developments, stormwater runoff from the Project Site has the potential to introduce pollutants into the stormwater system. Pursuant to Project Design Feature G-2, the Applicant would be required to implement SUSMP and Low Impact Development (LID) requirements throughout the operational life of the Project. The Applicant has prepared a SUSMP, provided in Appendix M of the Draft EIR, which outlines the post-construction BMPs proposed to control pollutants of concern associated with storm events up to the 0.75-inch precipitation level. Given the underlying soil conditions and the fact that proposed development will cover nearly the entire Project Site, infiltration and stormwater reuse were not considered a viable option for stormwater treatment. Accordingly, flow-through planters were selected to serve as bio-filtration, retention, and treatment BMPs. The flow-through planters would remove stormwater pollutants through a combination of overland flow through vegetation, surface detention, and filtration through soil. Rainfall from the rooftop and parking structures on-site would be directed to large flow-through planters located adjacent to the buildings via downspouts. These planters would provide biofiltration to the discharge from the roof downspouts and convey the flow through culverts to be discharged to the adjacent street. The Project's BMPs are required to treat the runoff from a 0.75-inch storm event. Based on this requirement, the Project would require a total treatment volume of 15,548 cubic feet of stormwater at a rate of 1.65 cfs, which can be effectively met through the use of the flow-through planters. Additionally, for runoff that is collected and discharged into the infiltration planter box by the roof conveying system, the sediment capture chamber would serve as pre-treatment to the filtration process. The sediment capture chamber would consist of baffle walls and perforations to allow drainage of standing water into the growing medium. Implementation of the proposed flow-through planters in combination with the additional BMPs listed in Project Design Feature G-2 would minimize pollutants within surface water runoff from the Project Site.

Through compliance with NPDES requirements and local regulations, including the implementation of appropriate BMPs ensured via implementation of Project Design Feature G-2, Project operation would not result in discharges that would: (1) violate any water quality standards or water discharge requirements; (2) create or contribute runoff water which would provide substantial additional sources of polluted runoff; or (3) otherwise substantially degrade water quality. Therefore, impacts to surface water quality associated with operation of the Project would be less than significant.

(c) Groundwater Hydrology

The Project Site is 78 percent impervious under existing conditions and would increase to 85 percent under the Project. However, as noted above, the Project Site is not located in an aquifer recharge area, and there are no groundwater wells or pumping activities within the Project Site. Therefore, the Project would not affect production levels of groundwater supply wells or groundwater recharge in the vicinity.

As discussed above, due to the maximum depth of excavation associated with the Project and variable groundwater levels, groundwater may be encountered. To account for this, the Project's foundations would be designed in a manner as to support the proposed structure in saturated soil conditions. This foundation design would result in only minor impacts to the top of the groundwater table (when such levels rise), and in any case would not affect any supply wells. Therefore, operation of the Project would result in less than significant impacts to groundwater hydrology.

(d) Groundwater Quality

Surface contaminants have the potential to adversely impact the quality of groundwater. However, as described above, the Project's proposed flow-through planters would treat stormwater runoff to minimize, if not avoid, potential impacts to groundwater.

In addition, as discussed in Section IV.F, Hazards and Hazardous Materials, of the Draft EIR, operation of the Project would involve the limited use of potentially hazardous materials typical of those used in commercial developments, including cleaning agents, paints, pesticides, and other materials used for landscaping. The management of any resultant hazardous wastes could increase the opportunity for hazardous materials to be released into the groundwater. However, all potentially hazardous materials would be used, stored, and disposed of in accordance with manufacturers' specifications and handled in compliance with applicable standards and regulations. Compliance with all applicable federal, state, and local requirements concerning the handling, storage, and disposal of hazardous waste would reduce the potential for Project operation to release contaminants into the groundwater, expand the area or increase the level of groundwater contamination, cause a violation of regulatory water quality standards at an existing production well, or otherwise substantially degrade groundwater quality. Accordingly, Project impacts on groundwater quality would be less than significant, and no mitigation measures are required.

(e) Seiche and Tsunami Risk

The Project Site is located within an area potentially affected by a tsunami or seiche as mapped in the City's General Plan Seismic Safety Element. The Project Site is located

in proximity to and up gradient from Long Beach Harbor and associated water bodies near the mouth of the Los Angeles River. In addition, the Project Site is located approximately 300 feet east of Alamitos Bay. However, tsunami warning systems are in place, such as the seismic Sea-Wave Warning System for the Pacific Ocean operated by a cooperative program of nations around the Pacific Rim, and the Alaska Tsunami Warning Center operated by the National Weather Service, and evacuation plans are in place to minimize hazards from tsunamis. In addition, the presence of the harbor breakwater and intervening urban development would limit potential effects from a seiche or tsunami on the Project Site. Therefore, impacts related to a potential seiche or tsunami would be less than significant.

b. Cumulative Impacts

(1) Surface Water Hydrology

The geographic context for the cumulative impact analysis of surface water hydrology is the San Gabriel Watershed. The Project in conjunction with cumulative growth in the watershed (inclusive of the related projects) would cumulatively increase stormwater runoff flows, potentially resulting in cumulative impacts to surface water hydrology. However, as described above, in accordance with NPDES and City requirements, related projects and other future development projects would be required to implement BMPs to manage stormwater runoff. Furthermore, the City of Long Beach Department of Public Works would review each future development project on a case-by-case basis to ensure sufficient local and regional drainage capacity is available to accommodate stormwater runoff. For projects located within the City, all future drainage facilities would be designed for either the 50-year capital storm or the 25-year urban design storm pursuant to City requirements. Similarly, other cities located within the boundaries of the San Gabriel Watershed would require projects to implement BMPs to reduce runoff flows and ensure drainage capacity is available to accommodate stormwater runoff from the respective sites. Therefore, the Project's cumulative impacts related to surface water hydrology would not be cumulatively considerable, and cumulative impacts on surface water hydrology would be less than significant.

(2) Surface Water Quality

The geographic context for the cumulative impact analysis of surface water quality is the San Gabriel Watershed and Alamitos Bay. As with the Project, cumulative growth in the San Gabriel Watershed and Alamitos Bay (inclusive of the related projects) would be subject to NPDES requirements regarding water quality during both construction and operation. In addition, it is anticipated that the related projects and other future development projects would be subject to SWPPP, SUSMP, and LID requirements. Furthermore, increases in regional controls associated with other elements of the MS4

Permit would improve regional water quality over time. With implementation of the Project, new BMPs for the treatment of stormwater runoff would be installed, thus minimizing impacts to the surface water quality of runoff from the Project Site. Overall, with compliance with all applicable laws, rules, and regulations, cumulative impacts to surface water quality would be less than significant.

(3) Groundwater Hydrology

The geographic context for the cumulative impact analysis of groundwater is the Coastal Plain of Los Angeles Groundwater Basin, West Coast Subbasin. Cumulative groundwater hydrology impacts could result from the overall utilization of land above the West Coast Subbasin. In addition, interruptions to existing groundwater flows by dewatering operations would have the potential to affect groundwater levels. As with the Project, any related project would be required to evaluate its individual impacts to groundwater hydrology due to temporary or permanent dewatering operations. However, any calculation of the extent to which the related projects would extract or otherwise directly use groundwater would be speculative.

The Project's discharges to groundwater, both during construction and post-development, would comply with adopted regulatory requirements designed by the LARWQCB to assure that regional development does not adversely affect water quality. These requirements include MS4 Permit and LID requirements; Construction General Permit requirements; General Dewatering Permit requirements; and Basin Plan benchmark groundwater quality objectives. Any future urban development occurring in the watershed also must comply with these requirements.

In addition, if necessary, related projects within the groundwater basin would incorporate structural designs for subterranean levels that are able to withstand hydrostatic forces and incorporate comprehensive waterproofing systems in accordance with current industry standards and construction methods. Should excavation associated with other projects extend beneath the groundwater level, temporary groundwater dewatering systems would be designed and implemented in accordance with the applicable General NPDES Permit issued by the LARWQCB and a storm drain connection permit issued by the jurisdictional storm drain agency for discharge to the public storm drain system. Similarly, if any of the related projects require permanent dewatering systems, such systems would be regulated by SWRCB permit requirements. Therefore, based on compliance with adopted regulatory requirements designed to protect the beneficial uses of water bodies, and with the incorporation of appropriate engineering solutions, cumulative groundwater impacts would be less than significant.

(4) Groundwater Quality

As described above, compliance with applicable regulations would prevent the Project from affecting or expanding any potential areas affected by existing contamination, increasing the level of contamination, or causing regulatory water quality standards to be violated. As with the Project, the related projects would be unlikely to cause or increase groundwater contamination because compliance with existing statutes and regulations would prevent the related projects from affecting or expanding any potential areas affected by contamination, or increasing the level of contamination, or causing regulatory water quality standards at an existing production well to be violated. Therefore, cumulative impacts to groundwater quality would be less than significant.

c. Project Design Features

The Project involves drainage improvements to serve the proposed development. These improvements would include relocation of the segment of the 36-inch storm drain that traverses the Project Site, which generally would align with proposed drive aisles within the site, as shown in Figure IV.G-2 in Section IV.G, Hydrology and Water Quality, of the Draft EIR. The existing storm drains along PCH would remain and connect to the relocated 36-inch storm drain segment, and the existing storm drain infrastructure along Marina Drive also would remain. Following Project implementation, the Project Site would be comprised of nine drainage subareas, and the overall drainage patterns and discharge points would be maintained, although runoff from a portion of the Project Site would drain into laterals directly from the BMPs (discussed below) and connect to the 36-inch storm drain to reflect the existing flow pattern. This would allow runoff in Marina Drive to closely match existing conditions. Runoff collected from building roof drains and parking structures would be treated using raised filtration planter boxes, which would discharge into each respective adjacent street via parkway culverts before flowing into the existing catch basins in PCH and Marina Drive.

Current stormwater regulations require development projects to obtain permits for both construction and operation of proposed uses. The conditions associated with these permits include various requirements for controlling the amount or rate of stormwater discharged from a project site, as well as the generation and release of pollutants into stormwater flows. The requirements for stormwater management to be employed as part of the Project are set forth in the project design features detailed below.

A SUSMP has been prepared for the Project and is included as Appendix M of the Draft EIR. The SUSMP details the BMPs to be implemented during Project operations, in compliance with regulatory requirements and as set forth below.

Project Design Feature G-1: In accordance with National Pollutant Discharge Elimination System (NPDES) and City of Long Beach requirements, prior to the issuance of a grading permit, the Applicant shall provide evidence to the City of Long Beach Department of Public Works, as appropriate, that a Notice of Intent (NOI) has been filed with the State Water Resources Control Board (SWRCB) for coverage under the Construction General Permit and a certification that a Storm Water Pollution Prevention Plan (SWPPP) has been prepared. Such evidence shall consist of a copy of the NOI stamped by the SWRCB or Los Angeles Regional Water Quality Control Board (LARWQCB), or a letter from either agency stating that the NOI has been filed. The SWPPP shall include a menu of Best Management Practices (BMPs) to be selected and implemented based on each construction phase and weather conditions in order to effectively control erosion. BMPs to be implemented as part of the Project may include, but shall not be limited to, the following:

- Erosion Control BMPs to protect the soil surface and prevent soil particles from detaching. Selection of appropriate erosion control BMPs shall be based on minimizing areas of disturbance, stabilizing disturbed areas, and protecting slopes/channels;
- Sediment Control BMPs, which are treatment controls that trap soil particles that have been detached by water or wind. Selection of appropriate sediment control BMPs shall be based on keeping sediments on-site and controlling the site boundaries;
- Wind Erosion Control BMPs, which consist of applying water to prevent or minimize dust nuisance;
- Tracking Control BMPs, which consist of preventing or reducing the tracking of sediment off-site by vehicles leaving the construction area. These BMPs include street sweeping and vacuuming. The construction site shall have a stabilized construction entrance to prevent off-site tracking of sediment and debris;
- Non-Stormwater Management BMPs, which are also referred to as “good housekeeping practices” involve keeping a clean, orderly construction site; and
- Waste Management and Materials Pollution Control BMPs consist of implementing procedural and structural BMPs for handling, storing, and disposing of wastes generated by a construction project to prevent the release of waste materials into stormwater runoff or discharges through the proper management of construction waste.

Project Design Feature G-2: In accordance with NPDES and City requirements, the Applicant has prepared and submitted for review and approval by

the City of Long Beach Department of Public Works a Standard Urban Stormwater Mitigation Plan (SUSMP) that includes BMPs and demonstrates compliance with the City's Low Impact Development (LID) requirements. Specific BMPs to be implemented as part of the SUSMP to manage post-construction stormwater runoff shall consist of bio-filtration, retention, and treatment BMPs in the form of flow-through planters, as described below:

- The flow-through planter BMP functions as a soil and plant-based filtration device that removes stormwater pollutants through a combination of overland flow through vegetation, surface detention, and filtration through soil. Pore spaces and organic material in the soils help to retain water in the form of soil moisture and to promote the adsorption of pollutants (i.e., dissolved metals and petroleum hydrocarbons) into the soil matrix. Adequate contact time between the surface and pollutant shall be provided for in the design of the system for this removal process to occur.
- Rainfall from rooftops and parking structures shall be directed to large flow-through planters adjacent to each building via downspouts. These planters shall provide biofiltration to the discharge from the roof downspouts and convey the flow through parkway culverts, which shall then discharge to the adjacent street. For any runoff collected and discharged into the infiltration planter box by the roof conveying system, the sediment capture chamber shall serve as a pre-treatment to the filtration process. The sediment capture chamber shall consist of baffle walls and perforations to allow drainage of standing water into the growing medium. This growing medium shall be composed of a minimum of 18 inches of sandy loam, with a minimum infiltration rate of 5 inches per hour. The sandy loam shall be underlain by a level of gravel and subdrains connecting to the existing off-site storm drain system.
- Plant materials shall be tolerant of summer drought, ponding fluctuations, and saturated soil conditions for 48 hours. Native plant species and/or hardy cultivars that are not invasive and do not require chemical inputs shall be used to the maximum extent practicable.
- The proposed flow-through planters shall treat the peak mitigation flow rate or volume of runoff produced by a 0.75-inch 24-hour rainfall event. Based on the SUSMP calculations, the flow-through planters shall be designed and sized to treat, at a minimum, 1.65 cubic feet per second or 15,548 cubic feet of combined on-site runoff.

- Installation of grate inlet atrium drains, catch basins, roof drains, and surface parking drains to screen trash and debris.
- Common area landscape management that includes use of drought tolerant, native landscaping, minimizing fertilizer and pesticide application, use of slow-release fertilizers, maintenance activities, and providing education and training for employees on management of landscape materials and stormwater management.
- Installing and maintaining efficient irrigation systems designed to minimize water by eliminating overspray to hardscape areas, and setting irrigation timing and cycle lengths in accordance with water demands, given time of year, weather, and day and night temperatures.
- Stenciling of “No Dumping—Only Rain In Drain” or equally effective phrase on catch basins and/or area drains to alert the public as to the destination of pollutants discharged into the stormwater.
- Parking lot, walkway and driveway sweeping, and common area litter control.
- Compliance with SUSMP design requirements for outdoor trash and storage areas, loading docks, and storm drain stenciling. The trash enclosures will have screens or walls to minimize the transport of trash and litter by the wind or water; the drainage will be directed to vegetated areas where feasible; and runoff water from adjoining roofs and pavement will be directed around trash areas.

Project Design Feature G-3: The Project shall include the installation of new storm drain laterals, where appropriate, to capture and discharge stormwater generated on-site. Post-Project lateral flows to the mainline shall match the existing tributary drainage areas. Site surface flows to the perimeter streets shall be maintained, where appropriate, to match existing runoff conditions and shall not affect the capacity of the existing local storm drain system.

Also refer to Section IV.F, Hazards and Hazardous Materials, of the Draft EIR for discussion of Project compliance with regulatory requirements related to the appropriate handling, storage, and disposal of hazardous materials, which would serve to minimize potential impacts to surface water quality.

d. Mitigation Measures

Impacts to surface water hydrology, water quality, and groundwater during construction and operation of the Project would be less than significant. No mitigation measures are required.

e. Level of Significance After Mitigation

As evaluated above, surface water hydrology, water quality, and groundwater impacts would be less than significant.

H. Land Use

a. Analysis of Project Impacts

(1) Project Improvements

As described in Section II, Project Description, of the Draft EIR, the Project proposes to replace the existing SeaPort Marina Hotel and associated amenities and surface parking areas on the Project Site with a commercial development comprising approximately 245,000 square feet of gross floor area, including approximately 95,000 square feet of retail uses, a 55,000 square foot grocery store, a 25,000 square foot fitness/health club, and approximately 70,000 square feet of restaurant uses, including 40,000 square feet of full service dining, 25,000 square feet of fast food, and 5,000 square feet of ready-to-eat dining. The proposed uses would be located in four buildings laid out in a village format, with three buildings fronting PCH and one building fronting Marina Drive. The buildings would consist of one and two stories, ranging in height from 30 feet to a maximum of 35 feet. A total of 1,150 parking spaces would be provided within two main parking structures, including a second-level parking deck above some of the single-story uses. The Project would have a total FAR of approximately 0.49:1 and setbacks of 20 feet would be provided along all adjacent streets.

Landscaped pedestrian pathways would be provided around the perimeter of the Project Site, and landscaped pedestrian-oriented open space areas such as plazas and paseos would be provided within the interior of the Project Site. Landscaped pedestrian walkways both within and along the perimeter of the Project Site would facilitate pedestrian access throughout the Project Site, as well as between adjacent uses. Landscaped pedestrian-oriented open space areas would include pedestrian seating, enhanced paving, planters, and accent trees. In addition to existing trees that would remain, new trees would be provided along the Project Site's adjacent street frontages. Landscape planters and hardscape features would be distributed throughout the upper level of the Project Site and

within the dining terraces. Additionally, landscape screening of the parking garage would be included. In total, approximately 146,797 square feet (approximately 3.37 acres or 31.3 percent of the total Project Site area) of open space would be provided on the Project Site, which would exceed the open space requirements of the SEADIP (which requires approximately 140,698 square feet or 30 percent of the total project site area). In addition, any threshold-size on-site trees or street trees removed during Project construction would be replaced in accordance with the City's Tree Maintenance Policy and other applicable City requirements.

The Project would incorporate features to support and promote environmental sustainability. "Green" principles are incorporated throughout the Project to comply with the City of Long Beach Green Building Ordinance (Ordinance No. ORD-09-0013) and the sustainability intent of the U.S. Green Building Council's LEED® program. In particular, the Project would meet the requirements for LEED® Certification (or equivalent) by incorporating a variety of transportation measures, energy conservation, water conservation, construction-related measures (including waste reduction features), and indoor air quality and durability features.

(2) Consistency with Local Plans and Applicable Policies

(a) City of Long Beach General Plan

The Project's consistency with the applicable goals and policies set forth in the Long Beach General Plan is analyzed in Table IV.H-1 in Section IV.H, Land Use, of the Draft EIR.

As discussed in Table IV.H-1 in Section IV.H, Land Use, of the Draft EIR, the Project would be consistent with relevant goals and policies of the Land Use Element. Specifically, consistent with the land use designation of the Project Site, the Project would include a variety of commercial uses along the major traffic arteries of PCH, 2nd Street, and Marina Drive. The proposed commercial uses, including a grocery store and other retail and restaurant uses, would serve and strengthen the neighborhood. These uses would be provided in four structures and would feature a maximum building height of 35 feet. Therefore, the Project would support the City's goals and policies regarding neighborhood emphasis, building heights, and specific land use guidelines within the SEADIP. The Project would also promote the City's goals and policies to improve the appearance of arterial corridors as the Project would include 20-foot landscaped setbacks as well as landscaped pedestrian walkways and landscaped pedestrian-oriented open space areas along the Project Site's perimeter and in the site's interior. The Project would also include the necessary infrastructure improvements to serve the proposed uses and would install water-efficient plumbing fixtures and landscaping. In addition, the Project would be located in an area well-served by public transit and bicycling opportunities. As

such, the Project would further the City's goals and policies regarding its utility infrastructure and transportation system.

The Project would also be consistent with the relevant goals and policies of the Mobility Element. As detailed in Table IV.H-1 in Section IV.H, Land Use, of the Draft EIR, the Project would implement any necessary access and intersection improvements in accordance with City design guidelines and requirements. In addition, the Project would maintain or improve the existing sidewalks and circulation system and would not disrupt existing or proposed transit and bicycle access adjacent to the Project Site. As previously described, the Project would also enhance the streets surrounding the Project Site by providing landscaped setbacks along PCH, 2nd Street, and Marina Drive. Thus, the Project would promote the City's policies regarding maintaining roadways, paths, sidewalks, and transit stops in good repair; providing adequate access; ensuring that any improvements to the existing transportation system complement pedestrian and bicycle circulation; and improving streets. The Project would also be consistent with applicable policies of the Mobility Element regarding transit and reducing vehicle miles and vehicle trips, as the Project Site would be located in an area well-served by public transit with a mature network of pedestrian and bicycle facilities. Accordingly, the Project Site's location would offer a variety of alternative modes of transportation for accessing the Project Site. The mixed-use characteristics of the Project would further reduce vehicle miles travelled. In addition, while significant traffic impacts would remain with the Project, as described in Section IV.K, Traffic and Access, of the Draft EIR, the mitigation program for the Project would include physical improvements to the intersections impacted by the Project to reduce significant impacts and improve the flow of traffic to the degree feasible.. Overall, the Project would promote the City's policies regarding improving traffic flow and reducing the environmental impacts of the transportation system. As discussed in Table IV.H-1 in Section IV.H, Land Use, of the Draft EIR, the Project would further support the Mobility Element by encouraging shared parking among the various commercial uses proposed within the Project Site.

As detailed in Table IV.H-1 in Section IV.H, Land Use, of the Draft EIR, the Project would be consistent with the relevant goals of the Conservation Element as the Project would not result in direct or indirect impacts to the adjacent Alamitos Bay and the Los Cerritos Wetlands. The Project would also comply with applicable water quality regulatory requirements to ensure impacts to surrounding waterways are minimized.

The Project would be consistent with the Noise Element by reducing the level of noise exposure during construction activities to the extent feasible and introducing land uses that would be consistent with the existing noise environment in the surrounding area.

Additionally, the Project would be consistent with the relevant policies of the Open Space Element. Specifically, the Project's open space areas would comprise approximately 146,797 square feet (approximately 3.37 acres or 31.3 percent of the total Project Site area) and would exceed the open space requirements of the SEADIP (approximately 140,698 square feet or 30 percent of the total project site area). The Project would also incorporate features to support and promote environmental sustainability, including measures aimed at transportation, energy and water conservation, construction, and indoor air quality.

As described in Table IV.H-1 in Section IV.H, Land Use, of the Draft EIR, the Project would be consistent with the relevant goals of the Public Safety Element. The Project would implement public safety features throughout the Project Site and provide adequate emergency access. In addition, the Project would not introduce uses that would create safety hazards. The Project would also comply with applicable regulations aimed at reducing natural hazards and would include mitigation measures to reduce any potential impacts.

As previously described, the Project Site is located within the Southeast Area Communities area (i.e., SEADIP) of the Long Beach Coastal Zone. As discussed in detail in Table IV.H-1 in Section IV.H, Land Use, of the Draft EIR, the Project would be consistent with applicable goals and policies of the Local Coastal Program Element of the City General Plan. In particular, the Project would be developed in accordance with land use and zoning design guidelines set forth in the SEADIP and would provide uses that complement and are compatible with existing surrounding uses. In addition, while significant traffic impacts would remain with implementation of the Project, the mitigation program for the Project would include physical improvements to intersections impacted by the Project that would serve to reduce significant impacts and improve traffic flow to the degree feasible. Furthermore, due to the Project Site's location, the Project would support the City's goal to prevent the disruption of existing neighborhoods.

Further, the Project would be consistent with the relevant policies of the Historic Preservation Element as the Project would not involve removal of a historic resource. In addition, in the event archaeological resources are discovered during construction, such resources would be treated in accordance with all applicable federal, state, and local requirements.

Regarding the General Plan Air Quality Element, as discussed in Table IV.H-1 in Section IV.H, Land Use, of the Draft EIR, the Project Site's location would offer a variety of transportation options for accessing the Project Site, which would serve to reduce vehicle trips and vehicle miles and associated air emissions. The mixed-use characteristics of the Project would further reduce vehicle miles travelled. In addition, the Project would

incorporate features to support and promote environmental sustainability, including energy conservation, water conservation, and waste reduction features, which would further reduce air emissions. While the Project would minimize particulate emissions to the degree feasible, the Project's impacts associated with regional operational emissions of NO_x would remain significant and unavoidable. However, the Project would not be in conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing emissions, including the goals of California Global Warming Solutions Act of 2006 (AB 32) and SCAQMD Rule 403, which aims to minimize particular emissions and control dust during construction. As such, the Project would be generally consistent with the applicable goals and policies of the City's Air Quality Element.

The Project would also be consistent with the relevant goals of the Seismic Safety Element. Specifically, the Project would comply with applicable regulations aimed at reducing impacts with regard to strong seismic ground shaking. In addition, implementation of mitigation measures would reduce impacts associated with liquefaction and settlement to a less than significant level.

As discussed in Table IV.H-1 in Section IV.H, Land Use, of the Draft EIR, the Project would be consistent with the goals and policies included in the Scenic Routes Element of the General Plan. The Project would not result in the removal or demotions of visual resources within or visible from a scenic route. Rather, the Project would be designed to take advantage of and complement the scenic setting and would be an overall aesthetic benefit to the Project Site and the surrounding area, including along the existing and proposed scenic routes in the Project vicinity. Furthermore, the Project would comply with all applicable regulations and standards related to aesthetics, views, and visual resources.

In summary, the Project would be generally consistent with the relevant goals and policies of the Long Beach General Plan.

*(b) Southeast Area Development and Improvement Plan and Long Beach
Municipal Code*

As previously discussed, the Project Site is located within the boundaries of the SEADIP, which is identified as Planned Development District 1 (PD-1). The PD-1 zoning overlay allows a compatible mix of land uses, planned commercial areas and business parks, and a variety of residential types. The Project Site is located within SEADIP Subarea 17, which is designated for commercial uses only. With the exception of the general development provisions applicable to the entire SEADIP area, the SEADIP does not include specific development and use standards for Subarea 17. The Project's

consistency with applicable general development provisions of the SEADIP is analyzed in Table IV.H-2 in Section IV.H, Land Use, of the Draft EIR.

As described in Section II, Project Description, of the Draft EIR, the Project would provide a mix of commercial uses, including retail and restaurant. Such uses would be consistent with the commercial uses envisioned for Subarea 17. In addition, the proposed uses would complement and be consistent with the existing commercial uses in the surrounding area. Per SEADIP requirements, the Project would provide 20-foot landscaped setbacks along adjacent streets and would not exceed a height of 35 feet. In addition, approximately 31.3 percent of the Project Site would be usable open space, which exceeds the SEADIP open space requirement of 30 percent of the total project area. As further detailed in Table IV.H-2 in Section IV.H, Land Use, of the Draft EIR, the Project would be consistent with all other applicable design requirements of the SEADIP as well.

LBMC Section 21.37.020 establishes Planned Development Districts, which allow for more flexible development plans than permitted under conventional zoning district regulations. In the event that specific development standards are not addressed in the Planned Development District, the regulations of the LBMC are enforced. Therefore, consistency with the LBMC is based on the Project's consistency with the general development and use standards of the SEADIP. As described in Table IV.H-2 in Section IV.H, Land Use, of the Draft EIR, the Project would be consistent with the applicable development standards set forth in the SEADIP.

(c) Long Beach Strategic Plan 2010

The Project's consistency with applicable goals of the Long Beach Strategic Plan 2010 is analyzed in Table IV.H-3 in Section IV.H, Land Use, of the Draft EIR. The Long Beach Strategic Plan 2010 sets goals to address key issues that concern the City, including population growth, housing demand, education, youth services, economic well-being, and the environment. As discussed in detail in Table IV.H-3, the Project would support applicable goals of the Long Beach Strategic Plan regarding community of neighborhoods, economic opportunity, and the environment. Specifically, the Project's commercial uses would complement the existing uses in the area and serve the needs of the surrounding neighborhoods. In addition, the Project would incorporate energy conservation, water conservation, and waste reduction features to promote the City's Green Building Ordinance and meet the requirements of LEED[®] Certification (or equivalent). Furthermore, the Project would provide landscaped and open space areas within and around the Project Site to beautify the neighborhood and enhance open space.

(3) Consistency with Regional Plans

(a) 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy and Compass Growth Vision

The Project's consistency with the applicable goals and principles set forth in the 2016–2040 RTP/SCS and the Compass Growth Vision Report is analyzed in Table IV.H-4 in Section IV.H, Land Use, of the Draft EIR. As described therein, the Project would be consistent with the applicable goals and principles set forth in the 2016–2040 RTP/SCS and the Compass Growth Vision Report.

(b) Regional Comprehensive Plan

The Project's consistency with the applicable goals and policies set forth in the Regional Comprehensive Plan is analyzed in Table IV.H-5 in Section IV.H, Land Use, of the Draft EIR. As described therein, the Project would be consistent with the applicable goals and policies set forth in the Regional Comprehensive Plan.

(4) Conclusion Regarding Impacts Relative to Land Use Consistency

Based on the above analysis, the Project would be generally consistent with applicable goals and policies in the local and regional plans that govern development of the Project Site. Therefore, the Project would not be in substantial conflict with applicable land use plans. As such, impacts related to land use consistency would be less than significant.

b. Cumulative Impacts

As indicated in Section III, Environmental Setting, of the Draft EIR, there are six related projects in the general vicinity of the Project Site. The related projects primarily represent urban infill development and the redevelopment of previously developed, often underutilized sites. The closest related projects to the Project Site are Related Project No. 3, located on Naples Island and consisting of retail uses, and Related Project No. 4, located within the El Cerrito Wetlands to the southeast of the Project Site and consisting of office and storage/warehouse uses, new oil wells, and a wetlands mitigation bank with a public access trail. The other related projects include residential, mixed-use, and recreational uses, as well as an energy storage facility, that collectively are urban infill projects located within the existing urban land use patterns of the area. As with the Project, the related projects would be required to comply with relevant land use policies and regulations. These related projects are not expected to fundamentally alter the existing land use relationships in the Project area. Therefore, the Project together with the related projects would not have cumulatively significant land use impacts. In addition, as the Project would generally be consistent with applicable land use plans and zoning standards,

the Project would not incrementally contribute to cumulative inconsistencies with respect to land use plans and zoning standards. Therefore, impacts with regard to the regulatory framework would not be cumulatively considerable, and cumulative impacts would be less than significant.

c. Project Design Features

No specific project design features beyond the Project improvements described in Section II, Project Description, of the Draft EIR are proposed with regard to land use.

d. Mitigation Measures

Project-level and cumulative impacts with regard to land use would be less than significant. Therefore, no mitigation measures are required.

e. Level of Significance After Mitigation

Project-level and cumulative impact with regard to land use would be less than significant.

I. Noise

a. Analysis of Project Impacts

(1) Construction Noise

Project construction is anticipated to occur over approximately 16 months. Construction of the Project would commence with demolition of the existing hotel structures and associated amenities and surface parking areas. It is estimated that grading of the Project Site would require approximately 7,582 cubic yards of soil removal, of which 6,688 cubic yards would be reused on-site for a net export volume of 894 cubic yards. During construction, regional access to and from the Project Site for construction trucks associated with hauling and deliveries would be provided via the SR-22 Freeway. It is anticipated that construction worker traffic would utilize both regional and local roadways to travel to and from the Project Site, including Pacific Coast Highway, 2nd Street, and Marina Drive.

(a) On-Site Construction Noise

Noise impacts from Project construction activities occurring within or adjacent to the Project Site would be a function of the noise generated by construction equipment, the

location of the equipment, the timing and duration of the noise-generating construction activities, and the relative distance to noise sensitive receptors. Construction activities would generally include demolition, site grading, and building construction. Each stage of construction would involve the use of various types of construction equipment and would, therefore, have its own distinct noise characteristics. Demolition generally involves the use of backhoes, front-end loaders, and heavy-duty trucks. Grading typically requires the use of earth moving equipment, such as excavators, front-end loaders, and heavy-duty trucks. Building construction typically involves the use of cranes, forklifts, concrete trucks, and delivery trucks. Noise from construction equipment would generate both steady-state and episodic noise that could be heard within and adjacent to the Project Site.

Individual pieces of construction equipment that would be used for Project construction produce maximum noise levels (L_{max}) of 74 A-weighted decibels (dBA) to 90 dBA at a reference distance of 50 feet from the noise source, as shown in Table IV.I-11 in Section IV.I, Noise, of the Draft EIR. These maximum noise levels would occur when equipment is operating under full power conditions (i.e., the equipment engine at maximum speed). However, equipment used on construction sites often operates under less than full power conditions, or partial power. To more accurately characterize construction-period noise levels, the average (hourly L_{eq}) noise level associated with each construction stage is calculated based on the quantity, type, and usage factors for each type of equipment that would be used during each construction stage.⁴⁰ These noise levels are typically associated with multiple pieces of equipment operating simultaneously.

Table IV.I-12 in Section IV.I, Noise, of the Draft EIR provides the estimated construction noise levels for various construction stages at the off-site noise sensitive receptors. The estimated noise levels represent a worst-case scenario in which all construction equipment was assumed to operate simultaneously and assumed to be located at the construction area nearest to the affected receptors. These assumptions are considered conservative as construction activities would typically be spread throughout the entire site, with much of the construction equipment located further away from the affected receptors. As indicated in Table IV.I-12, the estimated construction-related noise levels at Receptor R1 would exceed the 5 dBA significance threshold during the demolition phase by 0.8 dBA. The estimated construction noise levels would be below the significance threshold for all other construction phases. Therefore, temporary noise impacts associated with the Project's on-site construction activities would be significant without mitigation.

⁴⁰ Pursuant to the FHWA Roadway Construction Noise Model User's Guide, 2006, the usage factor is the percentage of time during a construction noise operation that a piece of construction is operating at full power.

(b) Off-Site Construction Noise

In addition to on-site construction noise sources, materials delivery vehicles, concrete mixers, haul trucks (construction trucks), and construction worker vehicles would require access to the Project Site during construction. The major noise sources associated with off-site construction trucks would be associated with delivery/haul trucks. Construction delivery/haul trucks would generally access the Project Site from SR-22 via Studebaker Road, 2nd Street, Pacific Coast Highway, and Marina Drive.

The peak period with the highest number of construction trucks (delivery/haul trucks) would occur during the building construction phase. During this phase, there would be a maximum of 50 construction trucks coming to and leaving the Project Site (equal to 100 total trips) per day. The site demolition and grading phases would have up to 40 construction trucks (80 total trips) per day. The construction trucks during the paving/concrete/landscape phase would involve up to 10 truck trips per day. Therefore, to present a worst-case analysis, the analysis of off-site construction truck traffic noise impacts is based on the construction truck trips during a maximum worst-case day during the building construction phase. Based on a typical workday (i.e., an eight-hour period) and a uniform distribution of trips throughout the day, a maximum of 13 truck trips per hour would occur. The estimated noise level along the Project's truck route would be approximately 62 dBA, which would be consistent with the existing ambient noise level (e.g., 64.7 dBA measured along PCH). During other construction phases, the number of construction trucks would be lower, which would result in lower noise levels. In addition, there are no sensitive uses (i.e., residential use) within 200 feet of the primary construction haul route. Therefore, noise impacts from off-site construction traffic would be less than significant.

(2) Construction Vibration

Construction activities can generate varying degrees of ground vibration, depending on the construction procedures and the type of construction equipment used. The operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receptor buildings. The results from vibration can range from no perceptible effects at the lowest vibration levels to low rumbling sounds and perceptible vibration at moderate levels. However, ground-borne vibrations from construction activities rarely reach levels that damage structures.

The Project would generate ground-borne construction vibration during site demolition and excavation/grading activities when heavy construction equipment, such as large bulldozers, is used. The Federal Transit Administration (FTA) has published standard

vibration velocities for various construction equipment operations. The typical vibration levels (in terms of inches per second peak particle velocity [PPV]) at a reference distance of 25 feet for construction equipment anticipated to be used during Project construction are listed in Table IV.I-13 in Section IV.I, Noise, of the Draft EIR.⁴¹ In accordance with the project design features, Project construction would not use impact pile driving methods, and as such, impact pile driving vibration is not included in this construction vibration analysis.

Table IV.I-13 in Section IV.I, Noise, of the Draft EIR provides the estimated vibration velocity levels at the off-site structures nearest to the Project construction area. As indicated therein, vibration velocities from typical heavy construction equipment operations that would be used during construction of the Project would range from 0.003 to 0.089 PPV at 25 feet from the equipment. The estimated vibration velocity levels (from all construction equipment) would be well below the significance thresholds of 0.3 PPV, applicable to the commercial buildings surrounding the Project Site. Therefore, vibration impacts associated with potential building damage during construction activities would be less than significant.

As described above, vibration levels generated by construction equipment would range from 0.003 to 0.089 PPV (or 58 to 87 velocity level in decibel [VdB]) at a distance of 25 feet from the construction equipment. With regard to human annoyance, the nearest off-site residential use is approximately 700 feet from the Project Site. At a distance of 700 feet, the vibration level from the Project construction area would be attenuated to a maximum of 44 VdB at the nearest off-site residential use (Receptor R1). The estimated vibration level at Receptor R1 would be well below the 75 VdB significance threshold. Therefore, temporary vibration impacts related to human annoyance during the construction period would be less than significant.

Construction trucks would generate ground-borne vibration as they travel along the Project designated haul route. Thus, an analysis of potential vibration impacts associated with building damage and human annoyance from ground-borne vibration along the local haul route was conducted. Based on FTA data, the vibration generated by a typical truck would be approximately 63 VdB (0.006 PPV) at a distance of 50 feet from the truck. There are existing buildings along the Project's haul route (i.e., Marina Drive, 2nd Street, PCH, and Studebaker Road) that are approximately 25 feet from the roadway and would be exposed to ground-borne vibration levels of approximately 0.016 PPV or 72 VdB. The estimated vibration generated by haul trucks along the haul route would be well below the most stringent building damage threshold of 0.12 PPV for buildings extremely susceptible to vibration. There are no sensitive (i.e., residential) uses within 200 feet of the primary

⁴¹ FTA, *Transit Noise and Vibration Impact Assessment*, May 2006.

construction haul route. Therefore, potential impacts associated with vibration from haul trucks traveling along the designated haul routes would be less than significant.

(3) Operational Noise

This section provides a discussion of potential operational noise impacts on nearby noise-sensitive receptors. Specific operational noise sources addressed herein include: (a) on-site stationary noise sources, which consist of outdoor mechanical equipment (i.e., rooftop condenser units), activities associated with the outdoor spaces, and parking facilities; and (b) off-site mobile (roadway traffic) noise sources.

(a) On-Site Stationary Noise Sources

(i) Mechanical Equipment

As part of the Project, new mechanical equipment (e.g., HVAC condenser units) would be located at the roof level. Although operation of this equipment would generate noise, implementation of the Project Design Feature I-3, above would ensure that all on-site mechanical equipment would comply with the LBMC, which limits the noise from air conditioning equipment to 55 dBA at the property line. The nearest off-site sensitive use, the Marina Pacifica residential community (Receptor R1), is approximately 700 from the Project Site. As such, the Project's mechanical equipment would be attenuated to below the existing nighttime ambient noise levels of 56.4 dBA at Receptor R1 due to distance attenuation. Therefore, noise impacts from mechanical equipment would be less than significant.

(ii) Outdoor Spaces

The Project includes a plaza, paseos within the interior of the Project Site, and outdoor seating patios and terraces at various locations within the Project Site. These outdoor spaces would be mostly shielded to the nearest off-site residential use (Receptor R1) by the proposed intervening structures, in particular the parking facility in the northern portion of the Project Site. For the noise analysis, it is conservatively estimated that up to 4,625 people could gather within the outdoor plaza, paseos, terraces, and outdoor dining patio areas. This is worst-case scenario, which assumes all of the outdoor spaces would be fully occupied at the same time. In addition, the noise analysis assumes people would be talking in loud voices. Reference noise levels of 75 dBA and 71 dBA (L_{eq} at a 3.3-foot distance) for a male and female, respectively, speaking in loud voices were used to analyze noise from the use of these areas.⁴² Furthermore, it was assumed that up to

⁴² Harris, Cyril M., *Handbook of Acoustical Measurements and Noise Control*, Third Edition, 1991, Table 16.1.

50 percent of the people (half of which are assumed to be male and the other half female) would be talking at the same time.

Another potential noise source associated with the outdoor spaces would be the possible use of an outdoor amplified sound system. The amplified sound system may be used for background music and intended to be heard by people in the immediate vicinity of the plaza, paseos, terraces, and outdoor dining areas. In accordance with Project Design Feature I-5, the amplified sound system would be designed so as not to exceed a maximum noise level of 80 dBA (L_{eq}) at a distance of 50 feet from the outdoor areas, thereby ensuring amplified sound would not exceed the significance threshold at any off-site noise-sensitive receptors. Table IV.I-14 in Section IV.I, Noise, of the Draft EIR presents the estimated noise levels from the outdoor spaces at the off-site receptors. As indicated therein, the estimated noise levels at Receptor R1 would be below the significance threshold. Therefore, noise impacts from use of the Project's outdoor spaces would be less than significant.

(iii) Parking Facilities

Parking would be provided in parking structures located at the northern and southern ends of the Project Site, as well as a second-level parking deck located above the proposed single-story uses along PCH, for a total of 1,150 parking spaces. Sources of noise within the parking areas would primarily include vehicular movements (engine noise), doors opening, people talking, and intermittent car alarms. 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 would generate maximum noise levels as high as 75 dBA (L_{max}) at a distance of 25 feet. Table IV.I-15 in Section IV.I, Noise, of the Draft EIR presents the estimated noise levels from the proposed parking facilities at the off-site noise receptors. As indicated therein, the estimated noise levels from on-site parking facilities would be well below the existing ambient noise levels. Therefore, noise impacts associated with the parking facilities would be less than significant.

(iv) Loading Dock/Trash Collection Areas

The Project would include loading areas in various areas to serve specific buildings. A loading zone would be located at the northern end of the Project Site adjacent to 2nd Street (to service the proposed grocery store), and smaller loading areas would be located near the northern and southern parking structures. Based on measured noise levels from typical loading dock facilities and trash compactors, delivery trucks and trash compactors could generate noise levels of approximately 71 dBA (L_{eq}) and 66 dBA (L_{eq}), respectively, at a distance of 50 feet. The loading docks would be largely shielded to the nearest off-site residential use (Receptor R1) by the proposed structures. Table IV.I-16 in Section IV.I,

Noise, presents the estimated noise levels from loading dock and trash compactor operations at the off-site receptors. As indicated therein, the estimated noise levels at both off-site receptors would be below the significance threshold. Therefore, noise impacts from loading docks and trash compactor operations would be less than significant.

(b) Off-Site Traffic (Mobile Sources)

(i) Future Plus Project

Future roadway noise levels were calculated along 21 off-site roadway segments in the vicinity of the Project Site. The off-site roadway noise levels were calculated using the traffic data provided in the Traffic Study. As discussed therein, the Project is expected to generate a net increase of 13,666 daily trips on a typical weekday and 17,611 daily trips on a typical weekend day. As such, Project-related traffic would increase traffic volumes along the analyzed roadway segments when compared with future without Project conditions. This increase in roadway traffic was analyzed to determine if any traffic-related noise impacts would result from Project operation.

Table IV.I-17 and Table IV.I-18 in Section IV.I, Noise, of the Draft EIR provide a summary of the off-site roadway noise impact analysis. The calculated Community Noise Equivalent Level (CNEL) levels are conservative as they are calculated in front of the roadways and do not account for the presence of any physical sound barriers or intervening structures. As shown in Table IV.I-17, the Project would result in a maximum increase of 0.5 dBA (CNEL) in traffic-related noise levels along Marina Drive (between 2nd Street and Studebaker Road) on a typical weekday. For a typical weekend day, the Project would result in a maximum increase of 0.8 dBA (CNEL) along Marina Drive (between 2nd Street and Studebaker Road) and along PCH (between Studebaker Road and Main Street), as indicated in Table IV.I-18. The anticipated increase in noise levels due to the Project would be below the more stringent 3 dBA significance threshold. Therefore, off-site traffic noise impacts associated with Future Plus Project Conditions would be less than significant.

(ii) Existing Plus Project

The analysis of off-site traffic noise impacts above was based on the incremental increase in traffic noise levels attributable to future with Project conditions as compared to future without the Project conditions. Additional analysis was conducted to determine the potential noise impacts based on the increase in noise levels due to Project-related traffic compared with the existing baseline traffic noise conditions.

As shown in Table IV.I 19 in Section IV.I, Noise, under Existing Plus Project Conditions, the Project would result in a maximum 0.5 dBA (CNEL) increase in traffic-

related noise levels along Marina Drive (between 2nd Street and Studebaker Road) on a typical weekday. On a typical weekend day, the Project would result in a maximum increase of 0.8 dBA CNEL along Marina Drive (between 2nd Street and Studebaker Road), as indicated in Table IV.I-20 in Section IV.I, Noise. The estimated increase in off-site traffic noise levels as compared to existing conditions would be well below the 3 dBA CNEL significance threshold. Therefore, off-site traffic noise impacts associated with Existing Plus Project Conditions would be less than significant.

(c) Composite Noise Level Impacts from Project Operations

In addition to considering the potential noise impacts to neighboring noise-sensitive receptors from each specific off-site and on-site noise source (e.g., traffic, mechanical equipment, loading docks/trash collections, outdoor areas, and parking facilities), an evaluation of the potential composite noise level increase (i.e., noise levels from all noise sources combined) at the analyzed sensitive receptor locations was also performed. This evaluation of composite noise levels was completed using the CNEL noise metric. Table IV.I-21 in Section IV.I, Noise, of the Draft EIR presents the estimated composite noise levels in terms of CNEL at the off-site receptors. As indicated therein, the Project would result in an increase of 1.7 dBA at the off-site residential use (Receptor R1), which would be below the more stringent 3-dBA significance threshold. Therefore, composite noise level impacts due to Project operations would be less than significant.

b. Cumulative Impacts

The Project together with the related projects and future growth could contribute to cumulative noise impacts. The potential for cumulative noise impacts to occur is specific to the distance between each related project and their respective stationary noise sources, as well as the cumulative traffic that these projects would add on the surrounding roadway network.

(1) Construction Noise and Vibration

As indicated in Section III, Environmental Setting, of the Draft EIR, a total of six related projects have been identified in the vicinity of the Project Site. Noise from the construction of development projects is typically localized and generally has the potential to affect areas within 500 feet of the construction site. Thus, noise from construction activities for two projects within 1,000 feet of each other can contribute to a cumulative noise impact for receptors located midway between the two construction sites. With the exception of Related Project No. 4, all of the other identified related projects are located a substantial distance (a minimum of 2,800 feet) from the Project Site. Related Project No. 4, Los Cerritos Wetlands Restoration and Oil Consolidation Project, includes four sites located at 6422 E. 2nd Street, 6701 E. Pacific Coast Highway, the northeast corner of Studebaker

Road and 2nd Street, and Shopkeeper Road at 2nd Street. There are no sensitive uses located within 1,000 feet of Related Project No. 4. The nearest sensitive use to Related Project No. 4 is a multi-family residential use located south of the water channel and west of Pacific Coast Highway. This multi-family residential use is located approximately 1,200 feet from Related Project No. 4 and 1,850 feet from the Project. Given this distance, contributions from the Project to cumulative construction noise impacts would be minimal, and impacts would be less than significant.

As previously discussed, ground-borne vibration decreases rapidly with distance. Potential vibration impacts due to construction activities are generally limited to buildings/structures located in close proximity of a construction site (i.e., within 50 feet). As indicated above, the nearest related project is more than 500 feet from the Project. Therefore, due to the rapid attenuation characteristics of ground-borne vibration, there is no potential for a cumulative construction impact with respect to ground-borne vibration, and cumulative impacts would be less than significant.

(2) Long-Term Operations

The Project Site and surrounding area have been developed with uses that have previously generated and will continue to generate noise from a number of community noise sources, including vehicle travel, mechanical equipment (e.g., HVAC systems), outdoor activity areas, and intermittent lawn maintenance activities. Each of the related projects identified in the Project vicinity also would generate stationary-source and mobile-source noise due to ongoing day-to-day operations. Related Project Nos. 2 through 6 include a limited amount of recreational, office, commercial/retail, restaurant, and storage/warehouse uses, which are not typically associated with excessive exterior noise levels. Related Project No. 1 (a battery energy storage facility) would include industrial mechanical/electrical equipment, including heat exchanger cooling towers and transformers (main power and isolation).

Due to provisions set forth in the LBMC that limit stationary source noise from mechanical equipment, noise levels would be less than significant at the property line for each related project. In addition, with implementation of the proposed project design features presented earlier in this section, noise impacts associated with Project operations would be less than significant. Based on the distance of the related projects from the Project Site and the noise levels associated with the Project after implementation of the proposed project design features, cumulative stationary source noise impacts associated with operation of the Project and related projects would be less than significant. However, each project would produce traffic volumes that are capable of generating roadway noise impacts.

The Project combined with the related projects in the area would produce traffic (i.e., off-site mobile sources) that would generate roadway noise. Cumulative noise impacts due to off-site traffic were analyzed by comparing the projected increase in traffic noise levels from existing conditions to Existing Plus Project Conditions to the applicable significance criteria. Future cumulative conditions include traffic volumes from future ambient growth, related projects, and the Project. The calculated traffic noise levels under existing and Existing Plus Project weekday conditions are presented in Table IV.I-22 in Section IV.I, Noise, of the Draft EIR. As shown therein, on a typical weekday the cumulative traffic volumes would result in a maximum increase of 0.7 dBA (CNEL) along Marina Drive (between 2nd Street and Studebaker Road). On a typical weekend day, the cumulative traffic volumes would result in a maximum increase of 1.0 dBA (CNEL) along Marina Drive (between 2nd Street and Studebaker Road), as indicated in Table IV.I-23 in Section IV.I, Noise, of the Draft EIR. At all other analyzed roadway segments, the increase in cumulative traffic noise would be lower. The increase in cumulative traffic noise would be below the most stringent 3 dBA significance threshold. Therefore, cumulative noise impacts due to off-site mobile noise sources associated with the Project, future growth, and related projects would be less than significant.

c. Project Design Features

The following project design features are proposed with regard to noise and vibration:

Project Design Feature I-1: Power construction equipment (including combustion engines), whether fixed or mobile, shall be equipped with state-of-the-art noise shielding and muffling devices (consistent with manufacturers' standards). All equipment shall be properly maintained to assure that no additional noise due to worn or improperly maintained parts would be generated.

Project Design Feature I-2: Project construction shall not include the use of driven piles systems.

Project Design Feature I-3: Project-related outdoor mechanical equipment shall be designed so as not to exceed 55 dBA at the Project property line, in accordance with the LBMC.

Project Design Feature I-4: Project loading dock and trash collection areas shall be designed such that the line of sight between these noise sources and any adjacent noise sensitive land use shall be obstructed to the extent necessary to comply with LBMC.

Project Design Feature I-5: Outdoor amplified sound systems shall be designed so as not to exceed a maximum noise level of 80 dBA (L_{eq}) at a distance of 50 feet from the amplified sound system.

d. Mitigation Measures

(1) Construction

As analyzed above, although the estimated construction noise levels would be below the significance threshold for the majority of construction phases, Project demolition activities would result in a significant noise impact at the nearest off-site residential use, located northwest of the Project Site. Therefore, the following mitigation measures are included to reduce construction-related noise impacts:

Mitigation Measure I-1: During the site demolition phase, a temporary and impermeable sound barrier shall be erected along the Project Site's northwestern and northeastern property lines between the construction area and nearby sensitive uses. The temporary sound barrier shall be a minimum of six feet tall and extend for a length of approximately 860 feet (specifically, 200 feet along Marina Drive south from 2nd Street, approximately 460 feet along 2nd Street, and 200 feet along Pacific Coast Highway south from 2nd Street). The temporary sound barrier shall be designed to provide a 5 dBA noise reduction at the residential uses to the northwest (Receptor R1) and the wetlands area to the northeast.

Mitigation Measure I-2: Stationary source equipment that is flexible with regard to relocation (e.g., generators and compressors) shall be located so as to maintain the greatest distance from noise-sensitive land uses, and unnecessary idling of such equipment shall be prohibited.

Mitigation Measure I-3: Loading and unloading of heavy construction materials shall be located on-site and away from noise-sensitive uses, to the extent feasible

(2) Operation

As discussed above, operation of the Project would not result in a significant impact to the off-site noise sensitive receptors. Therefore, no mitigation measures would be required.

e. Level of Significance After Mitigation

(1) Construction

Implementation of the proposed mitigation measures would reduce Project construction noise levels to the extent feasible. In particular, implementation of Mitigation Measure I-1 would reduce the noise generated by on-site demolition activities at Receptor R1 by 5 dBA. The estimated construction-related noise reductions attributable to Mitigation

Measures I-2 and I-3, although not easily quantifiable, also would reduce noise impacts associated with on-site construction activities to the extent feasible. The minimum 5 dBA noise reduction provided by these mitigation measures would reduce construction noise impacts at the nearest off-site noise-sensitive receptors to a less than significant level. As discussed above, cumulative construction noise impacts would be less than significant.

As analyzed above, vibration impacts from Project construction activities would be less than significant without mitigation. Cumulative construction vibration impacts would also be less than significant.

(2) Operation

Project-level and cumulative impacts with regard to operational noise would be less than significant.

J.1. Public Services—Fire Protection

a. Analysis of Project Impacts

(1) Construction Impacts

Construction activities for the Project could temporarily increase the existing demand for fire protection and emergency medical services. Specifically, construction activities could potentially expose combustible materials such as wood, plastics, sawdust, coverings, and coatings to fire risks from machinery and equipment sparks, exposed electrical lines, chemical reactions in combustible materials and coatings, and lighted cigarettes. However, in compliance with Occupational Safety and Health Administration (OSHA) and Fire and Building Code requirements, construction managers and personnel would be trained in emergency response and fire safety operations, including the monitoring and management of life safety systems and facilities. Additionally, fire suppression equipment such as fire extinguishers specific to construction would be maintained on-site. Project construction would comply with applicable codes and ordinances relating to fire safety practices to minimize fire and injury risks.

Project construction could require temporary lane closures along PCH, 2nd Street, and/or Marina Drive to construct proposed driveway and access improvements, utility connections, and drainage facilities. Construction activities also would generate traffic associated with the movement of construction equipment, the hauling of construction materials to and from the Project Site, and construction worker traffic. As such, Project construction activities could temporarily increase response times for emergency vehicles due to travel time delays caused by traffic. However, as evaluated in Section IV.K, Traffic

and Access, of the Draft EIR, the Project's construction traffic impacts would be less than significant with implementation of mitigation requiring the preparation and implementation of a Construction Management Plan. The Construction Management Plan would be developed in consultation with the Long Beach Department of Public Works, Traffic and Transportation Bureau, and would ensure that adequate and safe access remains available within and near the Project Site during all construction activities. Features of the Construction Management Plan may include limiting potential lane closures to off-peak travel periods, to the extent feasible, and employing flag persons to control traffic movement during temporary traffic flow disruptions. Traffic management personnel would be trained to assist in emergency response by restricting or controlling the movement of traffic that could interfere with emergency vehicle access. Furthermore, appropriate detour signage would be employed as necessary to ensure emergency access to the Project Site would be maintained and that traffic flow would be uninterrupted on adjacent street rights-of-way. In addition, most of the Project's construction workers and haul truck trips would occur outside of the typical weekday commuter morning and afternoon peak periods, thereby reducing the potential for construction-related traffic conflicts. The construction-related traffic generated by the Project also would not be anticipated to significantly impact emergency vehicle response times within the Project vicinity since the drivers of emergency vehicles normally have a variety of options for avoiding traffic, such as using sirens to clear a path of travel or driving in the lanes of opposing traffic.

Based on the above, Project construction would not require the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility in order to maintain service. Therefore, impacts to fire protection and emergency medical services during Project construction would be less than significant, and no mitigation measures are required.

(2) Operation Impacts

(a) Facilities and Equipment

As described in Section II, Project Description, of the Draft EIR, the Project would not include the development of new residential units, which would generate a new residential population in the service area of the fire stations serving the Project Site. In addition, the proposed retail and restaurant uses would replace an existing hotel use, which typically has a greater demand for fire protection services given the hours of operation and the daytime and nighttime population compared to a commercial use. Therefore, it is anticipated that the potential demand for fire protection services generated by the Project would be largely offset by removal of the existing hotel use.

The Project Site is located less than two miles from two fire stations (Fire Station No. 8 and Fire Station No. 14). In addition, Fire Station No. 4 located approximately 2.8 miles

from the Project Site, Fire Station No. 22 located 3.3 miles from the Project Site, Fire Station No. 17 located 3.6 miles from the Project Site, and Fire Station No. 18 located 5.3 miles from the Project Site would continue to be available to serve the Project Site in the event of an emergency. Furthermore, the Project would comply with regulatory requirements related to fire protection, including payment of the appropriate fire facilities impact fee, providing adequate emergency vehicle access, and installing adequate fire connections and fire hydrants, as determined by the Long Beach Fire Department (LBFD) during the plan check process for the Project. Should the City choose, fire facilities impact fees could be used to fund an additional rescue unit at Fire Station No. 22. As such, compliance with applicable regulatory requirements would ensure that adequate fire prevention features would be provided. Therefore, impacts with regard to LBFD facilities and equipment would be less than significant.

(b) Response Distance and Emergency Access

Project-related increases in traffic on surrounding roadways could have an impact on fire protection services if the response capabilities of the LBFD are impeded. As evaluated in Section IV.K, Traffic and Access, of the Draft EIR, upon completion in 2019, the Project would result in significant impacts at 11 intersections. However, emergency access to the Project Site and surrounding uses would be maintained at all times. In addition, in accordance with regulatory requirements, the Project would be designed to include fire apparatus access roads with an unobstructed width of not less than 26 feet, an unobstructed vertical clearance of 15 feet, and a turning radius of 28 feet. Furthermore, due to the proximity of nearby fire stations relative to the Project Site, emergency response times to the Project Site are not expected to substantially increase. Additionally, the traffic generated by the Project would not significantly impact emergency vehicle response times to the Project Site and surrounding uses since the drivers of emergency vehicles normally have a variety of options for avoiding traffic, such as using sirens to clear a path of travel or driving in the lanes of opposing traffic. Therefore, Project-related traffic is not anticipated to impair the LBFD from responding to emergencies at the Project Site or the surrounding area. As such, Project impacts with regard to fire response access and response times would be less than significant.

(c) Fire Flow

As described in Section IV.L.1, Utilities and Service Systems—Water Supply and Infrastructure, of the Draft EIR, domestic and fire water service to the Project Site would continue to be supplied by the Long Beach Water Department. As previously discussed, per the California Fire Code, fire flow requirements are based on building types and floor area and range from 1,500 to 8,000 gallons per minute at 20 pounds per square inch. In accordance with Section 18.48.420 of the Long Beach Fire Code, all new commercial, industrial, and non-residential buildings that require two or more exits or that are greater

than 3,000 square feet shall be protected by an automatic sprinkler system. As provided by the LBFD in Appendix P of the Draft EIR, per the Long Beach Fire Code, fire flows can be reduced by 50 percent when fire sprinklers are installed. Prior to the issuance of building permits, the LBFD would have the opportunity to review and grant approval of the final building design, including all fire prevention and suppression systems, which would ensure the Project is developed pursuant to Fire Code requirements. In addition, on-site water connections would be constructed, as necessary, to comply with the fire flow set for by the LBFD during the plan check process for the Project. With construction of any necessary on-site fire water system improvements, and (if required) the installation of additional fire hydrant(s) within the public right-of-way to meet the hydrant spacing requirements set forth in the LBMC, the Project would meet the fire flow requirement. Therefore, impacts with regard to fire flow would be less than significant.

(d) Conclusion

Based on the above, Project operation would not require the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility in order to maintain service. Therefore, impacts to fire protection and emergency medical services during Project operation would be less than significant, and no mitigation measures are required.

b. Cumulative Impacts

Cumulative growth in the greater Project area includes six related projects located in the Project vicinity, as identified in Section III, Environmental Setting, of the Draft EIR, as well as general ambient growth projected to occur. Four of the related projects are located in the City of Long Beach. As the City is considered essentially built out, the related projects represent rather limited floor area associated with a mix of recreational, office, commercial/retail, restaurant, storage/warehouse, and infrastructure uses. The increase in development from the Project and related projects would result in a cumulative increase in the demand for LBFD services. However, similar to the Project, the related projects would be reviewed by the LBFD to ensure that sufficient fire safety and hazards measures are implemented to reduce potential impacts to fire protection and emergency medical services. Furthermore, each related project would be required to comply with regulatory requirements related to fire protection and emergency medical services.

As with the Project, the related projects are located within an urban area and would likewise fall within an acceptable distance from one or more existing fire stations. In addition, each related project would be subject to the City's routine construction permitting process, which includes a review by the LBFD for compliance with building and site design standards related to fire safety, as well as coordinating with the Long Beach Water Department (LBWD) to ensure that local fire flow infrastructure meets current code

standards for the type and intensity of land uses involved. Furthermore, over time, the Lbfd would continue to monitor population growth and land development throughout the City and identify additional resource needs including staffing, equipment, trucks and engines, ambulances, other special apparatuses, and possibly station expansions or new station construction that may become necessary to achieve the desired level of service.

Based on the above, the Project's contribution to cumulative impacts to fire protection and emergency medical services would not be cumulatively considerable. As such, cumulative impacts on fire protection and emergency medical services would be less than significant.

c. Project Design Features

No specific project design features are proposed with regard to fire protection.

d. Mitigation Measures

Project-level and cumulative impacts with regard to fire protection and emergency medical services would be less than significant with compliance with applicable codes and regulations. Therefore, no mitigation measures are required.

e. Level of Significance After Mitigation

Project-level and cumulative impacts with regard to fire protection and emergency medical services would be less than significant.

J.2. Public Services—Police Protection

a. Analysis of Project Impacts

(1) Construction

Construction sites can be sources of nuisances and hazards and can invite theft and vandalism. When not properly secured, construction sites can contribute to a temporary increased demand for police protection services. Pursuant to Project Design Feature J.2-1, the Project Applicant would implement temporary security measures including, security fencing, lighting, and locked entry to secure the Project Site during construction. With implementation of these features, potential impacts associated with theft and vandalism during construction would be less than significant.

Additionally, Project construction could require temporary lane closures along PCH, 2nd Street, and Marina Drive to construct proposed driveway and access improvements, utility connections, and drainage facilities. Construction activities also would generate traffic associated with the movement of construction equipment, the hauling of construction materials to and from the Project Site, and construction worker traffic. As such, Project construction activities could temporarily increase response times for police vehicles due to travel time delays caused by traffic. However, as evaluated in Section IV.K, Traffic and Access, of the Draft EIR, the Project's construction traffic impacts would be less than significant with implementation of mitigation requiring the preparation and implementation of a Construction Management Plan. In addition, most of the construction workers and haul truck trips would occur outside of the typical weekday commuter morning and afternoon peak periods, thereby reducing the potential for construction-related traffic conflicts. The Construction Management Plan would ensure that adequate and safe access remains available within and near the Project Site throughout the duration of construction activities. Features of the Construction Management Plan, which would be finalized in consultation with the Long Beach Department of Public Works, Traffic and Transportation Bureau, may include limiting potential lane closures to off-peak travel periods, to the extent feasible, and employing flag persons to control traffic movement during temporary traffic flow disruptions. Traffic management personnel would be trained to assist in emergency response by restricting or controlling the movement of traffic that could interfere with emergency vehicle access. Furthermore, appropriate detour signage would be placed as necessary to ensure emergency access would be maintained to the Project Site and that traffic flow would be maintained on street rights-of-way. The construction-related traffic generated by the Project would not be anticipated to significantly impact emergency vehicle response times within the Project vicinity since the drivers of emergency vehicles normally have a variety of options for avoiding traffic, such as using sirens to clear a path of travel or driving in the lanes of opposing traffic.

With implementation of Project Design Feature J.2-1 described above, the Project would not generate a demand for additional police protection services that would substantially exceed the capability of the Long Beach Police Department (LBPD) to serve the Project Site, nor would the Project cause a substantial increase in emergency response times as a result of increased traffic congestion. Therefore, impacts on police protection services during Project construction would be less than significant.

(2) Operation

The Project does not include the development of new residential units, thus the residential population in the East Patrol Division service area would not increase. In addition, removal of the existing hotel on the Project Site, which has fallen into disrepair, would somewhat offset the Project's demand for additional police protection services. Nevertheless, the Project would result in an increase in on-site development and would

introduce new land uses that are not currently found on-site. As such, the Project would increase the employee and visitor population in the area and, accordingly, the demand for police protection services provided by the LBPD could increase.

With regard to employment, the Project is estimated to employ a total of 903 persons, including approximately 720 full-time employees and 183 part-time employees. In comparison, using a hotel employment generation rate of 0.105 employee per hotel room, the existing 248-room SeaPort Marina Hotel had an estimated total of 26 employees when fully operational. Like the existing hotel, the commercial uses proposed as part of the Project include a range of full-time and part-time positions that are typically filled by persons already residing in the vicinity of the workplace who generally do not relocate their households due to such employment opportunities. As such, the Project is not anticipated to indirectly result in residential population growth in the area which would change the existing Citywide officer-to-resident ratio of 1.72 officers per 1,000 residents.

Per Project Design Feature J.2-2, as part of the Project a private on-site security force would conduct regular site patrols and would be available to respond to any incidents on-site, thus limiting the need for LBPD response. Other security features would include alarm systems for individual tenants, security cameras, and appropriate night lighting in parking, circulation, and common areas. Alarm systems would be monitored, and police would be dispatched only as needed. With regard to lighting, as described in Section IV.A, Aesthetics, Views, and Light/Glare, of the Draft EIR, the Project would include exterior lighting on buildings for security and wayfinding purposes, as well as entryway lighting within the parking structures and along driveways and internal roadways for safety. Such lighting would improve visibility and prevent dark or concealed spaces. These preventative and proactive security measures would reduce the number of service calls for LBPD. Furthermore, in accordance with LBMC Chapter 18.22, the Project Applicant would pay the appropriate police facilities impact fee. The Project also would generate revenues to the City's general fund (in the form of property taxes, sales revenue, etc.) that could be applied toward the provision of new police facilities and related staffing, as deemed appropriate or necessary.

Based on the above, the Project would not generate an additional demand for police protection services that would substantially exceed the capability of the LBPD to serve the Project Site. Impacts to police protection services during operation of the Project would be less than significant, and no mitigation measures are necessary.

b. Cumulative Impacts

Cumulative growth in the greater Project area includes six related projects, identified in Section III, Environmental Setting, of the Draft EIR, as well as general ambient growth

anticipated to occur. As the City is considered essentially built out, the related projects represent rather limited floor area associated with a mix of recreational, office, commercial/retail, restaurant, storage/warehouse, and infrastructure uses. Based on the location of these related projects, four of the six developments fall within the service area of the East Patrol Division (the other two related projects are located in the City of Seal Beach). The increase in development and related daytime (employment and visitor) populations associated with the Project in combination with the related projects would result in a cumulative increase in the demand for LBPDP services. However, as with the Project, the related projects comprise non-residential uses. As such, the Project and related projects would not generate a new residential population in the East Patrol Division service area.

Also like the Project, the related projects would be subject to the payment of police facilities impact fees in accordance with LBMC Chapter 18.22. Additionally, the related projects would generate revenues to the City's general fund (in the form of property taxes, sales revenue, etc.) that could be applied toward the provision of new police facilities and related staffing, as deemed appropriate or necessary. The LBPDP continues to monitor population growth and land development throughout the City and identify additional resource needs including staffing, equipment, vehicles, and additional facility expansions that may become necessary to achieve the desired level of service.

Based on the above, the Project's contribution to cumulative impacts to police protection services would not be cumulatively considerable and, as such, cumulative impacts on police protection services would be less than significant.

c. Project Design Features

The following project design features pertaining to police protection are proposed as part of the Project:

Project Design Feature J.2-1: During construction, the Project Applicant shall implement temporary security measures including perimeter security fencing, lighting, and locked entry.

Project Design Feature J.2-2: The Project shall incorporate permanent security features, including a private on-site security patrol, alarm systems for individual tenants, security cameras, and appropriate night lighting in parking, circulation, and common areas.

Various design aspects of the Project, including lighting, would aid in reducing opportunities for crime, as discussed further below. Refer to Section IV.A, Aesthetics,

Views, and Light/Glare, of the Draft EIR for specific project design features pertaining to lighting.

d. Mitigation Measures

With implementation of project design features J.2-1 and J.2-2, Project-level and cumulative impacts with regard to police protection services would be less than significant. Therefore, no mitigation measures are required.

e. Level of Significance After Mitigation

Project-level and cumulative impacts with regard to police protection services would be less than significant.

K. Traffic and Access

a. Analysis of Project Impacts

(1) Construction Impacts

Potential traffic impacts from Project construction activities could occur as a result of the following types of activities:

- Increases in truck traffic associated with export or import of fill materials and delivery of construction materials;
- Increases in automobile traffic associated with construction workers traveling to and from the Project Site;
- Reductions in existing street capacity from temporary lane closures necessary for the construction of roadway/access improvements, utility connections, and drainage facilities; and
- Blocking existing vehicle or pedestrian access to other parcels fronting streets.

The following discussion addresses these potential impacts based on the construction characteristics of the Project. As described above, a set of construction assumptions were established for each phase of construction, including demolition; site grading/excavation; building foundation/framing/construction; and paving/concrete/landscaping. As discussed further below, the building foundation/framing/construction phase is estimated to generate the greatest amount of construction-related traffic. As such,

the construction analysis considered the peak haul trips and construction worker trips during this phase.

(a) Construction Trip Generation and Access

Table IV.K-8 in Section IV.K, Traffic and Access, of the Draft EIR provides a summary of the estimated construction peak-hour and daily traffic volumes during each of the four construction phases. As shown therein, Project construction could generate a maximum of 650 daily trips during the building foundation/framing/construction phase, with 214 total trips during the A.M. peak hour and 214 total trips during the P.M. peak hour. It is noted that the hours of construction typically require workers to be on-site before the morning commuter peak period (i.e., arrival prior to 7:00 A.M.) and allow them to leave before or after the afternoon peak period (i.e., before 4:00 P.M. or after 6:00 P.M.). Therefore, most, if not all, of the construction worker trips would occur outside the typical weekday commuter morning and afternoon peak periods.

During construction, regional access to and from the Project Site for construction trucks associated with hauling and deliveries would be provided via the SR-22 Freeway. It is anticipated that construction worker traffic would utilize both regional and local roadways to travel to and from the Project Site, including PCH, 2nd Street, and Marina Drive.

Figure 15-1 and Figure 15-2 of the Traffic Study included in Appendix R of the Draft EIR illustrate the traffic distribution patterns for the construction workers and trucks during the building foundation/framing/construction phase.

(b) Construction Traffic Impacts

(i) Temporary Traffic Impacts

The temporary traffic impacts of the Project during the peak construction phase associated with building foundation/framing/construction are summarized in Table IV.K-9 in Section IV.K, Traffic and Access, of the Draft EIR. As shown therein, six of the 31 study intersections would be temporarily impacted during the Project's peak construction phase prior to mitigation:

- Intersection No. 10: Studebaker Road at SR-22 Eastbound Ramps
- Intersection No. 17: Pacific Coast Highway at 2nd Street
- Intersection No. 18: Shopkeeper Road at 2nd Street
- Intersection No. 19: Studebaker Road at 2nd Street

- Intersection No. 23: Pacific Coast Highway at Marina Drive
- Intersection No. 30: SR-22 Westbound Ramps/Studebaker Road at College Park Drive

(ii) Access and Safety

Given the size of the Project Site, it is anticipated that Project construction activities generally would be contained within the Project Site boundaries. Furthermore, as part of the Project, construction staging and construction worker vehicle parking would be provided on-site to the extent possible. In addition, the Project would not require the removal of any on- or off-street parking. However, some construction activities could encroach into the public right-of-way adjacent to the Project Site for driveway and utility improvements. As such, the use of the public right-of-way could require temporary rerouting of pedestrian and/or vehicular traffic. Therefore, the Project could result in the temporary loss of access to sidewalks surrounding the Project Site perimeter, which represents a potentially significant impact prior to mitigation.

(iii) Public Transit

An existing bus stop is located adjacent to the Project Site along PCH. As previously described, it is anticipated that Project construction activities would be largely contained within the Project Site boundaries. However, some construction activities could encroach into the public right-of-way adjacent to the Project Site for driveway and utility improvements. As such, the potential use of the public right-of-way during construction could require the temporary relocation of the existing bus stop along PCH, which represents a potentially significant impact prior to mitigation.

(2) Operation Impacts

(a) Intersection Levels of Service

(i) Existing Plus Project Conditions

As previously discussed, the analysis of Existing Plus Project Conditions evaluates potential Project-related traffic impacts as compared to existing conditions during the typical weekday A.M. and P.M. peak periods for all intersections and weekend midday peak period for selected intersections.⁴³ In this scenario, the estimated Project traffic volumes

⁴³ The nine Saturday study intersections were selected in coordination with City staff and represent the locations with the greatest likelihood of being impacted by the Project based on weekend traffic conditions.

during the morning and afternoon peak periods and the weekend midday peak period were added to the existing morning and afternoon peak period and weekend midday peak period traffic volumes, respectively, to determine the change in the volume-to-capacity ratios for signalized intersections, the change in delay for unsignalized intersections, and the corresponding LOS. Table IV.K-10 in Section IV.K, Traffic and Access, of the Draft EIR summarizes the peak-hour level of service (LOS) results at the 31 study intersections under Existing Plus Project Conditions. As shown therein, traffic associated with the Project would significantly impact 9 of the 31 study intersections, including the following:

- Intersection No. 8: Studebaker Road at SR-22 Westbound Ramps (LOS E—P.M.)
- Intersection No. 14: Bay Shore Avenue at 2nd Street (LOS F—P.M., LOS F—Sat.)
- Intersection No. 17: Pacific Coast Highway at 2nd Street (LOS E—A.M./P.M., LOS F—Sat.)
- Intersection No. 19: Studebaker Road at 2nd Street (LOS E—P.M.)
- Intersection No. 20: Seal Beach Boulevard at Westminster Avenue (LOS E—P.M.)
- Intersection No. 22: Pacific Coast Highway at Studebaker Road (LOS E—Sat.)
- Intersection No. 23: Pacific Coast Highway at Marina Drive (LOS E—A.M.)
- Intersection No. 24: Pacific Coast Highway at Main/Bolsa Avenue (LOS C—P.M.)
- Intersection No. 25: Seal Beach Boulevard at Pacific Coast Highway (LOS D—P.M.)

As shown in Table IV.K-10 in Section IV.K, Traffic and Access, of the Draft EIR, Intersection No. 5: Park Avenue at 7th Street, Intersection No. 6: Pacific Coast Highway at 7th Street, Intersection No. 7: Bellflower Boulevard at 7th Street, and Intersection No. 10: Studebaker Road at SR-22 Eastbound Ramps are forecast to operate at unacceptable LOS E during the A.M., P.M., and/or Saturday midday peak hours with the addition of Project traffic. However, the Project is expected to add less than 0.020 to the intersection capacity utilization (ICU) value and would not result in a significant impact to these intersections. The remaining study intersections are forecast to continue to operate at an acceptable LOS with the addition of Project-generated traffic to existing traffic.

Based on the above, under Existing Plus Project Conditions, the Project would result in a significant impact at Intersection Nos. 8, 14, 17, 19, 20, 22, 23, 24, and 25 prior to mitigation.

(ii) Future Plus Project Conditions

The analysis of Future Plus Project Conditions identifies the potential impacts of the Project at full buildout on projected future operating conditions during the typical weekday morning and afternoon peak periods and during the weekend midday peak period for selected intersections by adding the net Project-generated traffic to the Future Without Project traffic forecasts for the year 2019. Table IV.K-11 in Section IV.K, Traffic and Access, of the Draft EIR summarizes the intersection levels of service under Future Plus Project Conditions during the weekday morning and afternoon peak hours and during the weekday midday peak period. As shown therein, under Future Plus Project Conditions, the Project would significantly impact 11 of the 31 study intersections, including:

- Intersection No. 8: Studebaker Road at SR-22 Westbound Ramps (LOS E—P.M.)
- Intersection No. 12: Studebaker Road at Loynes Drive (LOS E—P.M.)
- Intersection No. 14: Bay Shore Avenue at 2nd Street (LOS F—P.M./SAT.)
- Intersection No. 17: Pacific Coast Highway at 2nd Street (LOS F—A.M./P.M./Sat.)
- Intersection No. 19: Studebaker Road at 2nd Street (LOS E—A.M., LOS F—P.M.)
- Intersection No. 20: Seal Beach Boulevard at Westminster Avenue (LOS E—P.M.)
- Intersection No. 22: Pacific Coast Highway at Studebaker Road (LOS E—P.M./Sat.)
- Intersection No. 23: Pacific Coast Highway at Marina Drive (LOS E—A.M.)
- Intersection No. 24: Pacific Coast Highway at Main/Bolsa Avenue (LOS C—P.M.)
- Intersection No. 25: Seal Beach Boulevard at Pacific Coast Highway (LOS D—P.M.)
- Intersection No. 29: Pacific Coast Highway at 1st Street (LOS D—P.M.)

As shown in Table IV.K-11 in Section IV.K, Traffic and Access, of the Draft EIR, Intersection No. 1: Bellflower Boulevard at Atherton Street, Intersection No. 5: Park

Avenue at 7th Street, Intersection No. 6: Pacific Coast Highway at 7th Street, Intersection No. 7: Bellflower Boulevard at 7th Street, Intersection No. 10: Studebaker Road at SR-22 Eastbound Ramps, and Intersection No. 18: Shopkeeper Road at 2nd Street are forecast to operate at unacceptable LOS E or LOS F during the A.M., P.M., and/or Saturday midday peak hours with the addition of Project traffic. However, the Project is expected to add less than 0.020 to the ICU value and would not result in a significant impact to these intersections. The remaining study intersections are forecast to continue to operate at an acceptable LOS with the addition of Project generated traffic in the Year 2019.

In summary, under Future Plus Project Conditions, the Project would result in a significant impact at Intersection Nos. 8, 12, 14, 17, 19, 20, 22, 23, 24, 25, and 29 prior to mitigation.

(b) Regional Transportation System

(i) CMP Arterial Monitoring Station Analysis

As previously described, two Los Angeles County Congestion Management Program (CMP) arterial monitoring locations are located in proximity to the Project Site. These include CMP Station No. 39: Pacific Coast Highway at Westminster Avenue (2nd Street), also identified herein as Intersection No. 17, and CMP Station No. 36: Pacific Coast Highway at 7th Street, identified herein as Intersection No. 6. CMP guidelines require that arterial monitoring intersection locations must be examined if a proposed project will add 50 or more trips during either the A.M. or P.M. weekday peak hours (of adjacent street traffic) at CMP monitoring intersections. As provided above, the Project would generate 13,666 net new weekday daily trips, including 412 weekday A.M. peak-hour trips and 792 weekday P.M. peak-hour trips. The Project would also generate approximately 17,611 weekend daily trips, including 1,439 weekend midday peak-hour trips. As the Project would add 50 or more trips at the identified CMP intersections during the weekday A.M. peak hour or P.M. peak hour, a CMP intersection traffic impact analysis was conducted, as provided below.

CMP Station No. 36 (Intersection No. 6: Pacific Coast Highway at 7th Street): The Project would add approximately 67 trips during the A.M. peak hour and 131 trips during the P.M. peak hour at this location. As previously analyzed and shown in Table IV.K-11 in Section IV.K, Traffic and Access, of the Draft EIR, the Project would not increase demand at this key intersection by 2 percent (0.02) or more during the A.M. and P.M. peak hours; therefore, the Project would not have a CMP impact at this location.

CMP Station No. 39 (Intersection No. 17: Pacific Coast Highway at 2nd Street): The Project would add approximately 209 trips during the A.M. peak hour and 504 trips during the P.M. peak hour at this location. As previously analyzed and shown in

Table IV.K-11 in Section IV.K, Traffic and Access, of the Draft EIR, the Project would increase demand at this key intersection by more than 2 percent (0.02) during the A.M. and P.M. peak hours (0.034 and 0.102, respectively); therefore, the Project would result in a significant impact at this intersection prior to mitigation.

(ii) CMP Freeway Segment Analysis

As discussed above, the nearest mainline freeway monitoring location is CMP Station No. 1065: I-405 Freeway north of SR-22. Based on the Project-trip generation estimates shown above in Table IV.K-7 in Section IV.K, Traffic and Access, of the Draft EIR, the Project would not add 150 or more trips (in either direction) during the A.M. or P.M. weekday peak periods at this CMP mainline freeway monitoring location. Thus, a CMP freeway traffic impact analysis is not required.

(c) Public Transit

As previously discussed, public transportation in the Project area is provided by Metro, Orange County Transportation Authority, and Long Beach Transit. As shown in Table IV.K-7 in Section IV.K, Traffic and Access, of the Draft EIR, the Project would generate 13,666 net new weekday daily trips, including 412 weekday A.M. peak-hour trips and 792 weekday P.M. peak-hour trips. The Project would also generate approximately 17,611 weekend daily trips, including 1,439 weekend midday peak-hour trips. In accordance with CMP guidelines, the Project trip generation values presented in Table IV.K-7 in Section IV.K, Traffic and Access, of the Draft EIR were adjusted to estimate Project-related transit trip generation. Specifically, as set forth in the CMP, person trips equal 1.4 times vehicle trips and transit trips equal 3.5 percent of the total person trips. When applying these values to the Project's trip generation, the Project is forecasted to generate 20 transit trips (11 inbound and 9 outbound) during the A.M. peak hour and 39 transit trips (21 inbound and 18 outbound) during the P.M. peak hour. Over a 24-hour period the Project is forecasted to generate 670 daily weekday transit trips. Given the availability of public transit in the Project area, it is anticipated that the existing transit service in the Project area would be able to accommodate the Project-generated transit trips. Therefore, given the number of transit trips generated by the Project and the existing transit routes in the Project vicinity, the existing public transit system would not be substantially impacted by the Project. Thus, impacts to the existing public transit system would be less than significant.

(d) Access and Circulation

As part of the Project, access to the Project Site would be provided via two driveways located along PCH (referred to as Driveway No. 1 and No. 2), three driveways along Marina Drive (referred to as Driveway No. 3, No. 4, and No. 5), and one driveway

along 2nd Street (referred to as Driveway No. 6). The following describes the access assumptions for each driveway:

Pacific Coast Highway

- Driveway No. 1: Left-turn in/right-turn in and right-turn out driveway.
- Driveway No. 2: Full access signalized intersection, to be located opposite an existing driveway that now serves the Long Beach Marketplace.

Marina Drive

- Driveway No. 3: Right-turn in and right-turn out driveway.
- Driveway No. 4: Right-turn in and right-turn out driveway.
- Driveway No. 5: Right-turn in and right-turn out driveway.

2nd Street

- Driveway No. 6: Right-turn in and right-turn out driveway.

It should be noted that Project Driveways No. 1, No. 3, No. 4, and No. 5 are existing driveways that will remain in their current location as part of the Project. The remaining Project driveways would serve to facilitate site access and circulation. Relative to Driveway No. 1, eastbound (outbound) left-turn movements from this driveway to northbound Pacific Coast Highway are currently allowed, but will be prohibited as a part of the Project in order to improve safety along PCH. In addition, improvements are proposed at the PCH and Driveway No. 2/Long Beach Marketplace intersection in order to improve access to the site, subject to the review and approval of the City of Long Beach and Caltrans.

As it relates to internal circulation, the two driveways on PCH would provide access to the two-way drive aisle (“Main Street”) within the site interior, connecting to parking structures at the northern and southern ends of the Project Site. Of the three driveways along Marina Drive, the southern driveway would provide direct access to the southern parking structure, the northern driveway would provide direct access to the northern parking structure, and the middle driveway would provide access to the northern parking structure as well as the interior Main Street. In addition, a driveway along 2nd Street would provide right-in/right-out access to the northern parking structure.

Prior to Project approval, the Project's access and circulation design would be reviewed by the City during the building permit process to ensure the Project includes adequate drive aisle widths, driveway widths, and parking stall widths. Therefore, as the proposed access generally would be similar to existing conditions, and as the Project's access points and circulation corridors would comply with standard City requirements, it is not anticipated that the Project's proposed access points and internal circulation would impede traffic flows on adjacent streets or result in potential safety impacts. As such, Project impacts with regard to access and circulation would be less than significant.

For informational purposes only, an assessment of the proposed access driveway design was also conducted. This assessment determined the overall delay, in seconds, of a vehicle exiting the Project Site onto the surrounding street system from the proposed access driveways. The average delay is used to determine the intersection LOS according to the LOS definitions provided in Table IV.K-2 in Section IV.K, Traffic and Access, of the Draft EIR. Table IV.K-12 in Section IV.K, Traffic and Access, of the Draft EIR summarizes the Future Plus Project peak-hour level of service results for the six Project driveways. As shown therein, all Project driveways will operate at LOS D or better. As such, Project access would be adequate. Motorists entering and exiting the Project Site would be able to do so comfortably, safely, and without undue congestion.

(e) Queuing Analysis

In response to City staff concerns, stacking/storage requirements at the Project driveways were evaluated. The queuing evaluation was conducted based on projected Future Plus Project peak-hour traffic volumes using the HCM signalized and unsignalized methodology.

The results of the queuing analysis are shown in Table 11-2 of the Traffic Study included as Appendix R of the Draft EIR. As indicated therein, adequate storage would be provided at the six project driveways except for the southbound left-turn lane (into Long Beach Marketplace on the east side of PCH) and the dual eastbound left-turn lanes at PCH/Driveway No. 2. As proposed, the southbound left-turn lane at PCH/Driveway No. 2 would provide 130-feet of storage with a 90-foot transition. Based on the 95th percentile queuing results shown in Table 11-2, it is recommended that this turn pocket be lengthened by 50 feet to provide 180-feet of storage. Review of the current site plan indicates this can be accommodated by shortening the proposed 150-foot northbound left-turn lane at PCH/Driveway No. 1 by 50 feet, resulting in a 100-foot northbound left-turn lane at Driveway No. 1. The queuing analysis indicates a 100-foot northbound left-turn lane at Driveway No. 1 would be more than adequate to accommodate the projected 95th percentile queue at that location.

Although the 189-foot eastbound queue would exceed the proposed 150-foot dual eastbound left-turn lanes at PCH/Driveway No. 2, it is noted that additional storage capacity is available on-site within the drive aisles. Therefore, adequate storage would be provided for the dual eastbound left-turn lanes at PCH/Driveway No. 2.

(f) Bicycle, Pedestrian, and Vehicular Safety

As described above, access to the Project Site would be provided via driveways along PCH and Marina Drive. The Project access locations would be required to conform to City standards and would be designed to provide adequate sight distance, sidewalks, and pedestrian movement controls that meet the City's requirements to protect pedestrian safety. In addition, the proposed driveways would be designed to limit potential impediments to visibility. The Project would include separate pedestrian entrances and would provide access from adjacent streets, parking facilities, and transit stops to facilitate pedestrian movement. Further, the Project would maintain existing sidewalks and provide a direct and safe path of travel with minimal obstructions to pedestrian movement within and adjacent to the Project Site. As the Project would maintain the existing adjacent sidewalks and bike lanes that are part of the local circulation system, the Project would not disrupt pedestrian or bicycle flow along PCH, Marina Drive, or 2nd Street. Furthermore, visitors, patrons, and employees arriving by bicycle would have the same access opportunities as pedestrian visitors, and bike parking would be provided on-site as part of the Project's sustainability features. Therefore, the Project would not substantially increase hazards to bicyclists, pedestrians, or vehicles, or impact existing pedestrian and bicycle facilities. Impacts related to bicycle and pedestrian safety and facilities would be less than significant.

Separate from the 2nd & PCH Project, the City is undertaking the Marina Drive "Complete Street" Improvement Project (Marina Drive Project), which involves multimodal improvements along Marina Drive between 2nd Street and Studebaker Road in an effort to accommodate anticipated growth in the southeastern area of the City. These improvements are planned to include lane restriping to provide two continuous vehicular travel lanes in either direction;⁴⁴ a Class II bike lane in either direction, with the northbound bike lane separated from traffic by a three-foot buffer; clearly marked on-street parking in the northbound direction along all but the southernmost segment near Studebaker Road; reconfiguration of the northernmost Alamitos Bay Marina driveway to align with an existing driveway at the 2nd & PCH site and installation of a traffic signal at this intersection; landscaped median enhancements with appropriate turn pockets; new pedestrian crossings, including a mid-block crossing adjacent to the 2nd & PCH frontage; new sidewalk where there are gaps in the existing sidewalks thereby providing a continuous

⁴⁴ *Alternatively, the City is considering a "road diet" along this segment of Marina Drive, thus providing a single lane in either direction.*

sidewalk on the east side between 2nd Street and Studebaker Road; new streetscaping; and potentially a new bus stop or shelter should the City's transit and/or shuttle service be expanded to Marina Drive. These improvements proposed by the Department of Public Works are anticipated to be complete in 2018. The Marina Drive Project will receive funding from the 2nd & PCH Project Applicant as a community benefit.

(g) Parking

As previously discussed, LBMC Section 21.41.219 permits a reduced parking ratio for shopping centers greater than 150,000 square feet in size if it can be demonstrated in a shared parking analysis that the proposed parking supply will meet demand. Based on the Parking Analysis included as Appendix S of the Draft EIR, the proposed 1,150 parking spaces included in the Project (providing a ratio of approximately 4.7 per 1,000 gross square feet of floor area) would be adequate to meet Project-generated parking demand. Specifically, the Project's weekday peak parking demand would be 1,131 spaces and weekend peak parking demand would be 1,134 spaces. As the proposed shared parking supply would meet projected demand during both the weekday and weekend peak demand periods, parking impacts would be less than significant.

(3) Caltrans Roadway Analysis

In accordance with the current Caltrans *Guide for the Preparation of Traffic Impact Studies*, existing and projected weekday A.M., P.M., and weekend midday peak-hour operating conditions at the 16 state-controlled study intersections identified in Table IV.K-1 in Section IV.K, Traffic and Access, of the Draft EIR have been evaluated using the Highway Capacity Manual. The HCM methodology calculates the average control delay, in seconds, of a vehicle. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The control delay is used to determine the intersection LOS according to the LOS definitions provided in Table IV.K-3 in Section IV.K, Traffic and Access, of the Draft EIR.

(a) Existing Plus Project Conditions

As shown in Table IV.K-13 in Section IV.K, Traffic and Access, of the Draft EIR, under existing conditions, all of the state-controlled study intersections currently operate at an acceptable LOS D or better during the A.M. and P.M. peak hours except for Intersection No. 23: Pacific Coast Highway at Marina Drive. Intersection No. 23 currently operates at unacceptable LOS E during the A.M. peak hour.

As also shown in Table IV.K-13 in Section IV.K, Traffic and Access, of the Draft EIR, three of the 16 state-controlled study intersections are forecast to operate at an unacceptable service level during the A.M. and/or P.M. peak hours with the addition of

Project traffic to existing traffic. Specifically, Intersection No. 17: Pacific Coast Highway at 2nd Street, Intersection No. 23: Pacific Coast Highway at Marina Drive, and Intersection No. 25: Seal Beach Boulevard at Pacific Coast Highway are forecast to operate at unacceptable LOS E during the A.M. and/or P.M. peak hours. The remaining state-controlled key study intersections are forecast to continue to operate at an acceptable LOS with the addition of Project-generated traffic to existing traffic. Thus, based on Caltrans' recommended methodology the Project would significantly impact Intersection Nos. 17, 23, and 25 under Existing Plus Project prior to mitigation.

(b) Future Plus Project Conditions

As shown Table IV.K-14 in Section IV.K, Traffic and Access, of the Draft EIR, in 2019, all of the state-controlled study intersections are projected to operate at an acceptable LOS D or better during the A.M. and P.M. peak hours except for Intersection No. 23: Pacific Coast Highway at Marina Drive. Intersection No. 23 is projected to operate at unacceptable LOS E during the A.M. peak hour.

Table IV.K-14 in Section IV.K, Traffic and Access, of the Draft EIR indicates that three of the 16 state-controlled study intersections would operate at an unacceptable service level during the A.M., P.M. and/or weekend midday peak hours under Future Plus Project Conditions. Specifically, Intersection No. 17: Pacific Coast Highway at 2nd Street, Intersection No. 23: Pacific Coast Highway at Marina Drive, and Intersection No. 25: Seal Beach Boulevard at Pacific Coast Highway are forecast to operate at unacceptable LOS E during the A.M. and/or P.M. peak hours. The remaining state-controlled key study intersections are forecast to continue to operate at an acceptable LOS with the addition of Project-generated traffic in the year 2019. Thus, based on Caltrans' recommended methodology under the Future Plus Project Conditions, the Project would significantly impact Intersection Nos. 17, 23, and 25 prior to mitigation.

(4) Caltrans Freeway Analysis

As previously discussed, 12 freeway segments were analyzed at Caltrans' request, as evaluated below.

(a) Existing Plus Project Conditions

As shown in Table IV.K-15 in Section IV.K, Traffic and Access, of the Draft EIR, under existing conditions, 3 of the 12 freeway segments operate at an unacceptable LOS E during the A.M. and/or P.M. peak hours. As also shown, the same three freeway segments are forecast to operate at an unacceptable LOS during the A.M. and/or P.M. peak hours with the addition of Project traffic to existing traffic. Although the addition of Project trips is not anticipated to result in any new deficient service levels, the Project's contribution to the

freeway system would be significant at 2 of the 12 freeway segments under this traffic impact analysis scenario.

(b) Future Plus Project Conditions

As shown in Table IV.K-16 in Section IV.K, Traffic and Access, of the Draft EIR, under future (2019) conditions, 3 of the 12 freeway segments are forecast to operate at an unacceptable LOS E during the A.M. and/or P.M. peak hours. As also shown, the same three freeway segments are forecast to operate at an unacceptable LOS during the A.M. and/or P.M. peak hours with the addition of Project traffic. Although the addition of Project trips is not anticipated to result in any new deficient service levels, the Project's contribution to the freeway system would be significant at 2 of the 12 freeway segments under this traffic impact analysis scenario.

(5) Caltrans Ramps Analysis

An analysis of four ramps at the SR-22 interchange at Studebaker Road was also conducted. This analysis is consistent with Caltrans requirements and was prepared using HCM methodology.

(a) Existing Plus Project Conditions

As shown in Table IV.K-17 in Section IV.K, Traffic and Access, of the Draft EIR, under existing conditions, two of the four analyzed ramps operate at an unacceptable LOS during the A.M. or P.M. peak hours. As also shown, the same two ramps are forecast to operate at an unacceptable LOS during the A.M. or P.M. peak hours with the addition of Project traffic. Although the addition of Project trips is not anticipated to result in any new deficient service levels, the Project's contribution to the freeway ramp system would be significant at those two freeway ramps under this traffic impact analysis scenario.

(b) Future Plus Project Conditions

As shown in Table IV.K-18 in Section IV.K, Traffic and Access, of the Draft EIR, two of the four ramps are forecast to operate at an unacceptable LOS during the A.M. and/or P.M. peak hours under future (2019) conditions. As also shown, the same two ramps are forecast to operate at an unacceptable LOS during the A.M. and/or P.M. peak hours with the addition of Project traffic. Although the addition of Project trips is not anticipated to result in any new deficient service levels, the Project's contribution to the freeway ramp system would be significant at those two freeway ramps under this traffic impact analysis scenario.

b. Cumulative Impacts

(1) Construction

As previously discussed, the construction of six related projects is anticipated in the Project area. These six related projects are dispersed throughout the Project area and would draw upon a workforce from all parts of the Los Angeles County and Orange County region. Many, and likely most, of the construction workers are anticipated to arrive and depart the individual construction sites during off-peak hours (i.e., arrival prior to 7:00 A.M. and departure between 3:00 and 4:00 P.M.), thereby avoiding construction-related trips during the A.M. and P.M. peak traffic periods. In addition, it is anticipated that the haul truck routes for the related projects would be approved by the City according to the location of the individual construction sites and the ultimate destination(s) in a manner that reduces impacts to the local and regional roadway systems as much as possible. The City's established review process takes into consideration overlapping construction projects and would balance haul routes to minimize the impacts of cumulative hauling on any particular roadway. Nevertheless, the potential exists for the construction-related activities and/or haul routes of the Project and the related projects to overlap, particularly with respect to related projects west, south, and southeast of the Project Site that travel north along Pacific Coast Highway or 2nd Street to access the SR-22 Freeway. In particular, there is a potential for these related projects and the Project to use the same haul routes at the same time. As analyzed above, the Project would result in temporary intersection impacts during construction. As such, the Project's contribution traffic impacts during construction would be cumulatively considerable, and construction-related cumulative traffic impacts would be significant.

(2) Operation

The traffic models used in the above analysis incorporated forecasted traffic increases due to ambient growth as well as the related projects through the year 2019. Furthermore, the CMP analysis presented above evaluates traffic impacts on a larger, regional scale. Therefore, cumulative impacts on intersections, including Caltrans facilities, and the regional transportation system as a result of the Project are accounted for in the analysis above. The following is a summary of the Future Plus Project—cumulative—impacts.

(a) Intersection Levels of Service

As detailed above, under cumulative conditions (Future Plus Project Conditions), the Project would result in significant impacts to 11 of the 31 study intersections. Therefore, the Project's contribution to cumulative impacts would be considerable, and cumulative

impacts would be significant at the intersections significantly impacted by the Project (Intersection Nos. 8, 12, 14, 17, 19, 20, 22, 23, 24, 25, and 29).

(b) Regional Transportation System

(i) CMP Arterial Monitoring Station Analysis

As described above, the Project would add 50 or more trips at the identified CMP intersections during the weekday A.M. peak hour and P.M. peak hour. Specifically, the Project would add approximately 209 trips during the A.M. peak hour and 504 trips during the P.M. peak hour at CMP Station No. 39 (Intersection No. 17: Pacific Coast Highway at 2nd Street). The Project would increase demand at this key intersection by more than 2 percent (0.02) during both the A.M. and P.M. peak hour (0.034 and 0.102, respectively). Thus, the Project would result in a significant impact at this location prior to mitigation.

At CMP Station No. 36 (Intersection No. 6: Pacific Coast Highway at 7th Street), the Project would add approximately 67 trips during the A.M. peak hour and 131 trips during the P.M. peak hour. The Project would not increase demand at this intersection by 2 percent or more during the A.M. and P.M. peak hours. As such, the Project would not result in significant CMP impacts at this intersection. Therefore, the Project would not contribute to a significant cumulative impact at this location.

(ii) CMP Freeway Segment Analysis

As analyzed above, the Project would not add 150 or more trips (in either direction) during the A.M. or P.M. weekday peak periods at the nearest mainline freeway monitoring location (CMP Station No. 1065: I-405 Freeway, north of SR-22). Therefore, the Project would not contribute to a significant cumulative impact at this location.

(iii) Public Transit

As with the Project, the related projects would generate an overall increase in transit riders. However, this effect is considered a positive impact and is consistent with City land use and transportation policies to reduce traffic. Given the availability of public transit in the Project area, the anticipated increased transit ridership associated with the Project and related projects is not expected to exceed the capacity of transit systems. Thus, Project impacts with regard to transit would not be cumulatively considerable, and cumulative impacts would be less than significant.

(c) Access and Circulation

Due to the distance of the related projects from the Project Site, it is not anticipated that the Project, when combined with the related projects, would create a significant cumulative impact to access and circulation. In addition, as with the Project, the related projects would be subject to review by the City for compliance with standard City requirements regarding adequate access and circulation. Therefore, the Project's cumulative impacts would not be cumulatively considerable, and impacts to access and circulation would be less than significant.

(d) Bicycle, Pedestrian, and Vehicular Safety

As analyzed above, Project impacts related to bicycle, pedestrian, and vehicular safety would be less than significant. In addition, as with the Project, it is anticipated that future related projects would be subject to City review to ensure that such projects are designed with adequate access and circulation, including standards for sight distance, sidewalks, crosswalks, and pedestrian movement controls. Thus, Project impacts with regard to bicycle, pedestrian, and vehicular safety would not be cumulatively considerable, and cumulative impacts would be less than significant.

(e) Parking

With regard to parking, the parking demand associated with the Project would not contribute to a cumulative demand for parking in the vicinity of the Project Site as a result of development of the Project and related projects. As with the Project, related projects have been or would be subject to City review to ensure that adequate parking be provided for each of the related projects. Therefore, Project impacts with regard to parking would not be cumulatively considerable, and cumulative impacts would be less than significant.

(3) Caltrans Roadway Analysis

As detailed above, under cumulative conditions (Future Plus Project Conditions), the Project would result in significant impacts to 3 of the 16 Caltrans study intersections. Therefore, the Project's contribution to cumulative impacts would be considerable, and cumulative impacts would be significant at those intersections (Intersection Nos. 17, 23, and 25).

(4) Caltrans Freeway Analysis

As detailed above, under cumulative conditions (Future Plus Project Conditions), the Project would result in significant impacts to 2 of the 12 evaluated freeway segments. Therefore, the Project's contribution to cumulative impacts would be considerable, and

cumulative impacts would be significant at those segments (Freeway Segment Nos. 1 and 2).

(5) Caltrans Ramps Analysis

As detailed above, under cumulative conditions (Future Plus Project Conditions), the Project would result in significant impacts to two of the four ramps studied. Therefore, the Project's contribution to cumulative impacts would be considerable, and cumulative impacts would be significant at those ramps (Ramp Nos. 2 and 3).

c. Project Design Features

In addition to the Project characteristics and improvements described in Section II, Project Description, of the Draft EIR, the Project would implement the following specific project design features regarding traffic and access:

Project Design Feature K-1: Pacific Coast Highway Project Frontage—Provide an acceleration/deceleration lane on PCH along the Project Site frontage. The deceleration lane will function as a southbound right-turn lane at Project Driveway No. 1 and Project Driveway No. 2. The installation of these improvements is subject to the approval of the City of Long Beach and Caltrans.

Project Design Feature K-2: Pacific Coast Highway at Project Driveway No. 1—Construct the Project driveway and provide one inbound lane and one outbound lane (i.e., one eastbound right-turn lane). It is recommended that the median on PCH be modified to prohibit eastbound (outbound) left turns and restriped to provide one 100-foot northbound left-turn lane with a 90-foot transition. Install a stop sign, "STOP" pavement legend, and stop bar at the Project driveway. The installation of these improvements is subject to the approval of the City of Long Beach and Caltrans.

Project Design Feature K-3: Pacific Coast Highway at Project Driveway No. 2—Construct the Project driveway and a new driveway that will serve the Long Beach Marketplace on the east side of PCH. The Project driveway will provide one inbound lane, dual 150-foot eastbound left-turn lanes, and a 150-foot eastbound shared through/right-turn lane. The Long Beach Marketplace driveway will provide two inbound lanes, one 90-foot westbound left-turn lane, and one 90-foot westbound shared through/right-turn lane. The median on PCH will be modified to provide appropriate left-turn lane pockets and transitions in both the northbound and southbound directions. Install an eight-phase traffic signal. The installation of these improvements is subject to the approval of the City of Long Beach and Caltrans.

Project Design Feature K-4: Marina Drive at Project Driveway No. 3—Maintain the existing driveway to provide one inbound lane and one outbound lane (i.e., one westbound right-turn lane). Install a stop sign, “STOP” pavement legend, and stop bar at the Project driveway. The installation of these improvements is subject to the approval of the City of Long Beach.

Project Design Feature K-5: Marina Drive at Project Driveway No. 4—Maintain the existing driveway to provide one inbound lane and one outbound lane (i.e., one westbound right-turn lane). Install a stop sign, “STOP” pavement legend, and stop bar at the Project driveway. The installation of these improvements is subject to the approval of the City of Long Beach.

Project Design Feature K-6: Marina Drive at Project Driveway No. 5—Maintain the existing driveway to provide one inbound lane and one outbound lane (i.e., one westbound right-turn lane). Install a stop sign, “STOP” pavement legend, and stop bar at the Project driveway. The installation of these improvements is subject to the approval of the City of Long Beach.

Project Design Feature K-7: 2nd Street at Project Driveway No. 6—Construct the Project driveway and provide one inbound lane and one outbound lane (i.e., one northbound right-turn lane). Install a stop sign, “STOP” pavement legend, and stop bar at the Project driveway. The installation of these improvements is subject to the approval of the City of Long Beach.

Project Design Feature K-8: In compliance with LBMC Section 21.64.030(B) 1, 2, and 3, the Project shall implement transportation demand management (TDM) measures to reduce vehicle trips and encourage the use of public transit. These measures include, but are not limited to:

- Provide a bulletin board/kiosk displaying information regarding bus schedules and routes, ridesharing, bike routes, and carpool/vanpool opportunities.
- Provide 10 stalls for employee parking located as close as practical to employee entrance for use by potential carpool/vanpool vehicles. These reserved parking spaces shall be signed/striped as demand warrants with at least two spaces provided at all times.
- Vanpool/carpool loading/unloading and parking areas.
- Provide bicycle parking facilities which are safely and conveniently accessible from the external street system, with the number and location(s) determined in consultation with the City.

- Provide a designated rideshare drop off/pickup area and concierge service to facilitate and encourage the use of rideshare programs.

In accordance with the LBMC, the Project Applicant also would be required to pay a Transportation Improvement Fee. The fee and any credit for existing development will be determined by the City upon issuance of Project building permits.

d. Mitigation Measures

The mitigation program for the Project includes the following physical improvements to the intersections impacted by the Project:

(1) Construction

Mitigation Measure K-1: Prior to the start of construction, the Project Applicant shall provide for the preparation of a detailed Construction Management Plan, including haul routes and a staging plan, and submit it to the City of Long Beach Department of Public Works, Traffic and Transportation Bureau for review and approval. The Construction Management Plan would formalize how construction would be carried out and identify specific actions that would be required to reduce effects on the surrounding community. The Construction Management Plan shall be based on the nature and timing of the specific construction activities and shall include, but not be limited to, the following elements, as appropriate:

- Traffic control for any street closure, detour, or other disruption to traffic circulation.
- Identify the routes that construction vehicles would utilize for the delivery of construction materials (i.e. lumber, tiles, piping, windows, etc.), to access the Project Site, traffic controls and detours, and proposed construction phasing plan for the Project.
- Specify the hours during which transport activities can occur and methods to mitigate construction-related impacts to adjacent streets.
- Require the Applicant to keep all haul routes clean and free of debris including but not limited to gravel and dirt as a result of its operations. The Applicant shall clean adjacent streets, as directed by the City Engineer (or representative of the City Engineer), of any material which may have been spilled, tracked, or blown onto adjacent streets or areas.

- Hauling or transport of oversize loads shall be allowed between the hours of 9:00 A.M. and 3:00 P.M. only, Monday through Friday, unless approved otherwise by the City Engineer. No hauling or transport shall be allowed during nighttime hours, weekends or Federal holidays.
- Haul trucks entering or exiting public streets shall at all times yield to public traffic.
- Construction-related parking and staging of vehicles shall occur on-site to the extent possible.
- The Construction Management Plan shall meet standards established in the current *California Manual on Uniform Traffic Control Device (MUTCD)* as well as City of Long Beach requirements.
- During periods when the public right-of-way is affected by Project construction activities, coordinate with the City of Long Beach and Long Beach Transit to ensure the provision of safe pedestrian and bicycle access and the temporary relocation of any affected transit stops, in accordance with applicable laws and regulations and as feasible.

(2) Operation

The mitigation program for the Project includes the following physical improvements to the intersections impacted by the Project:

Mitigation Measure K-2: Intersection No. 8: Studebaker Road at SR-22 Westbound Ramps—Widen and restripe the westbound approach to provide a third westbound left-turn lane. Widen and restripe the southbound approach of Studebaker Road to provide a third southbound through lane. These improvements would require right-of-way acquisition at the on/off ramp and along the west side of Studebaker Road. Modify the existing traffic signal as necessary. The installation of these improvements is subject to the approval of the City of Long Beach and Caltrans. Since publication of the Draft EIR, the City of Long Beach has determined this mitigation measure to be infeasible at this time given the issues attendant to acquisition of private right-of-way.

Mitigation Measure K-3: Intersection No. 12: Studebaker Road at Loynes Drive—Widen and restripe the northbound approach of Studebaker Road to provide a third northbound through lane. This improvement would require right-of-way acquisition from property owners along the east side of Studebaker Road. Modify the existing traffic signal as necessary. The installation of these improvements is subject to the approval of the City of Long Beach. Since publication of the Draft

EIR, the City of Long Beach has determined this mitigation measure to be infeasible at this time given the issues attendant to acquisition of private right-of-way.

Mitigation Measure K-4: Intersection No. 14: Bay Shore Avenue at 2nd Street—

Widen and restripe the northbound approach of Bay Shore Avenue to provide an exclusive northbound right-turn lane. This improvement would require right-of-way acquisition at the southeast corner of the intersection and may affect the existing sidewalk and/or existing public restroom building. This improvement would also require the elimination of short-term parking on Bay Shore Avenue adjacent to the Bay Shore Neighborhood Library. Modify the existing traffic signal as necessary. The installation of these improvements is subject to the approval of the City of Long Beach. Since publication of the Draft EIR, the City of Long Beach has determined this mitigation measure to be infeasible at this time given the issues attendant to acquisition of private right-of-way.

Mitigation Measure K-5: Intersection No. 17: Pacific Coast Highway at 2nd Street—

Widen and restripe the northbound approach of Pacific Coast Highway to provide an exclusive northbound right-turn lane. This improvement would require right-of-way acquisition from property owners on the southeast corner of the intersection and may affect the existing Mobil gas canopy. Widen and restripe the eastbound approach of 2nd Street to provide a fourth eastbound through lane. This improvement would require right-of-way acquisition from property owners on the southwest corner and the southeast corner of the intersection and may affect the existing Mobil gas canopy. Widen and restripe the westbound approach of 2nd Street to provide a third westbound left-turn lane. This improvement would require right-of-way acquisition from property owners on the northeast corner of the intersection and may affect the existing In-N-Out burger drive-through lane. Modify the existing traffic signal as necessary and install an eastbound right-turn overlap phase. The installation of these improvements is subject to the approval of the City of Long Beach and Caltrans. Since publication of the Draft EIR, the City of Long Beach has determined this mitigation measure to be infeasible at this time given the issues attendant to acquisition of private right-of-way.

Mitigation Measure K-6: Intersection No. 19: Studebaker Road at 2nd Street—

Widen and restripe the eastbound approach of 2nd Street to provide a third eastbound left-turn lane. Widen and restripe Studebaker Road to provide a third northbound receiving lane. These improvements would require right-of-way acquisition along the south side of 2nd Street and on the east side of Studebaker Road within the existing wetlands. Modify the existing traffic signal as necessary. The installation of these improvements is subject to the approval of

the City of Long Beach. Since publication of the Draft EIR, the City of Long Beach has determined this mitigation measure to be infeasible at this time given the issues attendant to acquisition of private right-of-way.

Mitigation Measure K-7: Intersection No. 20: Seal Beach Boulevard at Westminster Avenue—Widen and restripe the northbound approach of Seal Beach Boulevard to provide an exclusive northbound right-turn lane. This improvement would require right-of-way acquisition from property owners on the southeast corner of the intersection. Modify the existing traffic signal as necessary. The installation of these improvements is subject to the approval of the City of Seal Beach. Since publication of the Draft EIR, the City of Long Beach has determined this mitigation measure to be infeasible at this time given the issues attendant to acquisition of private right-of-way.

Mitigation Measure K-8: Intersection No. 22: Pacific Coast Highway at Studebaker Road—Convert the exclusive southbound right-turn lane on Pacific Coast Highway to a shared through/right-turn lane. Widen and restripe Pacific Coast Highway to provide a third southbound receiving lane. The third southbound receiving lane would require right-of-way acquisition from property owners on the southwest corner of the intersection in order to maintain the existing bike lane. Modify the existing traffic signal as necessary. The installation of these improvements is subject to the approval of the City of Long Beach and Caltrans. Since publication of the Draft EIR, the City of Long Beach has determined this mitigation measure to be infeasible at this time given the issues attendant to acquisition of private right-of-way.

Mitigation Measure K-9: Intersection No. 23: Pacific Coast Highway at Marina Drive—Install a three-phase traffic signal with protected left-turn phasing in the northbound direction. The installation of these improvements is subject to the approval of the City of Seal Beach and Caltrans. Since publication of the Draft EIR, the City of Long Beach has determined this mitigation measure to be infeasible at this time.

Mitigation Measure K-10: Intersection No. 24: Pacific Coast Highway at Main Street/Bolsa Avenue—Widen and restripe the northbound approach of Pacific Coast Highway to provide a third northbound through lane. This improvement would require right-of-way acquisition from property owners on the northeast corner and the southeast corner of the intersection. This improvement may also affect the existing building located on the northeast corner of the intersection and the existing parking spaces within Seal Beach Center located on the southeast corner of the intersection. Modify the existing traffic signal as necessary. The installation of these improvements is subject to

the approval of the City of Seal Beach and Caltrans. Since publication of the Draft EIR, the City of Long Beach has determined this mitigation measure to be infeasible at this time given the issues attendant to acquisition of private right-of-way.

Mitigation Measure K-11: Intersection No. 25: Seal Beach Boulevard at Pacific Coast Highway—Widen and restripe the northbound approach of Seal Beach Boulevard to provide an exclusive northbound right-turn lane. This improvement would require right-of-way acquisition from property owners on the southeast corner of the intersection. Modify the existing traffic signal as necessary. The installation of these improvements is subject to the approval of the City of Seal Beach and Caltrans. Since publication of the Draft EIR, the City of Long Beach has determined this mitigation measure to be infeasible at this time given the issues attendant to acquisition of private right-of-way.

Mitigation Measure K-12: Intersection No. 29: Pacific Coast Highway at 1st Street—Widen and restripe the southbound approach of Pacific Coast Highway to provide an exclusive southbound right-turn lane. This improvement would require right-of-way acquisition from property owners on the northwest corner of the intersection. Modify the existing traffic signal as necessary. The installation of these improvements is subject to the approval of the City of Seal Beach and Caltrans. Since publication of the Draft EIR, the City of Long Beach has determined this mitigation measure to be infeasible at this time given the issues attendant to acquisition of private right-of-way.

The physical improvements included in these mitigation measures are subject to the approval of the City of Long Beach, City of Seal Beach, and/or Caltrans, as noted above, and in many cases are dependent on the acquisition of private right-of-way. Since publication of the Draft EIR, the City of Long Beach has determined these mitigation measures to be infeasible at this time given the issues attendant to the acquisition of private right-of-way. Accordingly, for purposes of this EIR, impacts at those intersections are considered to be significant and unavoidable. There are no other feasible mitigation measures that would substantially lessen or avoid those significant impacts.

e. Level of Significance After Mitigation

(1) Construction

As shown in Table IV.K-9 in Section IV.K, Traffic and Access, of the Draft EIR, Project construction would result in temporary or short-term construction-related impacts to six study intersections, including Intersection Nos. 10, 17, 18, 19, 23, and 30. The Project would implement Mitigation Measure K-1, which would ensure that adequate and safe access remains available within and surrounding the Project Site and would

minimize potential conflicts between construction activity and pedestrian and vehicular traffic in the vicinity of the Project Site. Nevertheless, impacts would remain significant and unavoidable.

(2) Operation

(a) *Intersection Levels of Service*

(i) *Existing Plus Project Conditions*

Intersection operating conditions with implementation of mitigation during the weekday A.M. and P.M. peak periods and during the weekend midday peak period for intersections impacted by the Project under Existing Plus Project Conditions are summarized in Table IV.K-19 in Section IV.K, Traffic and Access, of the Draft EIR. As shown therein, implementation of the mitigation measures listed above would reduce Project impacts at all study intersections impacted under Existing Plus Project Conditions to below a level of significance. However, as noted above, implementation of these mitigation measures would require the approval of the City of Long Beach, the City of Seal Beach, and/or Caltrans, as well as the acquisition of right-of-way, which cannot be guaranteed. As such, traffic impacts under Existing Plus Project Conditions would be significant and unavoidable.

(ii) *Future Plus Project Conditions*

Table IV.K-20 in Section IV.K, Traffic and Access, of the Draft EIR summarizes the Future Plus Project Conditions with the incorporation of mitigation measures during the weekday A.M. and P.M. peak periods and during the weekend midday peak period for the impacted study intersections. As shown therein, implementation of the mitigation measures listed above would reduce Project impacts at all study intersections impacted under Future Plus Project Conditions to below a level of significance. However, as noted above, implementation of these mitigation measures would require the approval of the City of Long Beach, the City of Seal Beach, and/or Caltrans, as well as the acquisition of right-of-way, which cannot be guaranteed. As such, traffic impacts under Future Plus Project Conditions would be significant and unavoidable.

(b) *Regional Transportation System*

(i) *CMP Arterial Monitoring Station Analysis*

As described above, the Project would increase demand at CMP Station No. 39 (Intersection No. 17: Pacific Coast Highway at 2nd Street) by more than 2 percent (0.02) during both the A.M. and P.M. peak hour (0.034 and 0.102, respectively). Thus, the Project would result in a significant impact without mitigation at this location. Implementation of

Mitigation Measure K-5 would reduce Project impacts at Intersection No. 17: Pacific Coast Highway at 2nd Street to a less than significant level. However, as noted above, implementation of this mitigation measure would require the approval of the City of Long Beach and Caltrans, as well as the acquisition of right-of-way, which cannot be guaranteed. As such, Project-level and cumulative impacts to this CMP arterial monitoring station would be significant and unavoidable.

Impacts at CMP Station No. 36 would be less than significant, and no mitigation is required.

(ii) CMP Freeway Segment Analysis

As analyzed above, the Project would not add 150 or more trips (in either direction) during the A.M. or P.M. weekday peak periods at the nearest mainline freeway monitoring location (CMP Station No. 1065: I-405 Freeway, north of SR-22). Therefore, Project-level and cumulative impacts to a CMP freeway monitoring location would be less than significant.

(iii) Public Transit

Project-level and cumulative impacts with regard to transit would be less than significant, and no mitigation is required.

(c) Access and Circulation

Project-level and cumulative access and circulation impacts would be less than significant, and no mitigation is required.

(d) Bicycle, Pedestrian, and Vehicular Safety

Project-level and cumulative access impacts related to bicycle, pedestrian, and vehicular safety and facilities would be less than significant, and no mitigation is required.

(e) Parking

Project-level and cumulative impacts related to parking would be less than significant, and no mitigation is required.

(f) Caltrans Roadway Analysis

(i) Existing Plus Project Conditions

As shown in Table IV.K-21 in Section IV.K, Traffic and Access, of the Draft EIR, implementation of mitigation would reduce Project impacts at all of the significantly impacted state-controlled study intersections under Existing Plus Project Conditions. However, as noted above, implementation of the applicable mitigation measures would require the approval of the City of Long Beach, the City of Seal Beach, and/or Caltrans, as well as the acquisition of right-of-way, which cannot be guaranteed. As such, traffic impacts to Caltrans intersections under Existing Plus Project Conditions would be significant and unavoidable.

(ii) Future Plus Project Conditions

As shown in Table IV.K-22 in Section IV.K, Traffic and Access, of the Draft EIR, implementation of mitigation would reduce Project impacts at all of the significantly impacted state-controlled study intersections under Future Plus Project Conditions. However, as noted above, implementation of these mitigation measures would require the approval of the City of Long Beach, the City of Seal Beach, and/or Caltrans, as well as the acquisition of right-of-way, which cannot be guaranteed. As such, traffic impacts to Caltrans intersections under Future Plus Project Conditions would be significant and unavoidable.

(g) Caltrans Freeway Analysis

SR-22 is controlled exclusively by the State, and there is no mechanism by which the lead agency (i.e., the City of Long Beach) can construct or guarantee the construction of any improvements to the significantly impacted freeway segments. Therefore, the Project's impacts on Caltrans freeway segments are considered significant and unavoidable, as there are no feasible mitigation measures that would reduce mainline impacts to below significance thresholds or achieve acceptable service level goals.

(h) Caltrans Ramps Analysis

As noted above, SR-22 is controlled exclusively by the State, and there is no mechanism by which the lead agency (i.e., the City of Long Beach) can construct or guarantee the construction of any improvements to the significantly impacted freeway ramps. Therefore, the Project's freeway ramp impacts are considered significant and unavoidable, as there are no feasible mitigation measures that will reduce such impacts to below significance thresholds or achieve acceptable service level goals.

L.1. Utilities and Service Systems—Water Supply

a. Analysis of Project Impacts

(1) Construction Impacts

**Project construction activities would result in a temporary increase in water demand. Water use would be associated with earthwork and soil compaction, dust control, mixing and placement of concrete, equipment and site cleanup, irrigation for plant and landscaping establishment, water line testing and flushing, and other related short-term activities. These activities would occur intermittently throughout the construction period and would be temporary in nature. The amount of water used during construction would vary depending on weather, soil conditions, the size of the area being worked, and the specific activities being performed. However, the short-term and intermittent water use during construction is not expected to be substantial. Furthermore, the water demand generated by construction activities would be offset by the reduction in water consumption resulting from the removal of the existing hotel. In addition, as concluded in LBWD's 2015 Urban Water Management Plan (UWMP), projected water demand for the City will be met by available supplies during a normal year, single dry year, and multiple dry year hydrological conditions through 2040, as well as the intervening years.

The Project would require construction of new, on-site water distribution lines to connect the proposed uses to the existing 12-inch water mains located in 2nd Street and Marina Drive. The design and installation of new water connections would meet applicable City standards. No upgrades to the water main lines that serve the Project Site would be required. Therefore, most construction impacts associated with the installation of the water distribution lines are expected to be confined to trenching in order to place the lines below surface and would be limited to the existing on-site water distribution infrastructure. Minor off-site construction activities associated with connections to the public water mains would occur. Vehicular and pedestrian access immediately surrounding the Project Site could be affected during construction of new water connections to the public water mains. However, as discussed in Section IV.K, Traffic and Access, of the Draft EIR, a construction management plan would be implemented during Project construction to ensure that adequate and safe access remains available within and near the Project Site during construction activities. Features of the construction management plan, which would be developed in consultation with the City's Bureau of Engineering, may include limiting potential lane closures to off-peak travel periods, to the extent feasible, and employing flag persons to control traffic movement during temporary traffic flow disruptions. In addition, prior to conducting any ground disturbing activities, Project contractors would coordinate with the LBWD to identify the locations and depths of existing water lines in the Project Site vicinity to avoid disruption of water service.

Based on the above, Project construction activities would require minimal water usage and are not anticipated to have a substantial adverse impact on available water supplies or infrastructure. In addition, off-site construction impacts would be temporary in nature and would not result in a substantial inconvenience to other water users or motorists and pedestrians. As such, construction-related impacts to water supply and infrastructure would be less than significant.

(2) Operation Impacts

(a) Water Supply

Development of the Project would increase the long-term water demand associated with consumption, operational uses, maintenance, and other on-site activities. As shown in Table IV.L.1-3 in Section IV.L.1, Utilities and Service Systems—Water Supply and Infrastructure, of the Draft EIR, it is estimated that the Project would have an average daily domestic water demand of approximately 108,282 gpd or approximately 121.3 acre-feet per year. As previously described, the existing uses within the Project Site are estimated to have a water demand of approximately 12,498 gpd or approximately 14 acre-feet per year. When accounting for the existing uses to be removed, the Project would result in a net increase in average daily water demand of approximately 95,784 gpd or approximately 107.3 acre-feet per year. It should be noted that the Project's estimated water demand is conservative as it does not account for water conservation features that would be included as part of the Project or that would be required by the City. These water saving features would reduce Project demand accordingly.

Based on LBWD's 2015 UWMP water demand projections through 2040 shown in Table IV.L.1-3 in Section IV.L.1, Utilities and Service Systems—Water Supply and Infrastructure, of the Draft EIR, the water demand for the City in 2019 during normal year, single dry year, and multiple dry year hydrological conditions is expected to reach approximately 63,690 acre-feet per year.⁴⁵ The Project's estimated net increase in water demand of approximately 107.3 acre-feet per year would comprise approximately 0.17 percent of the City's water demand in 2019. Therefore, the Project would be well within the available and projected water supplies from 2019 through the year 2040 and, as such, the LBWD would be able to meet the water demand for the Project in combination with existing and planned water demand in its future service area. It is further noted that the 2015 UWMP anticipates commercial growth throughout the City, such as would occur

⁴⁵ As noted above, the 2015 UWMP's projections begin with 2020. A linear interpolation of the 2020 to 2025 change in water supply and demand was used to calculate 2019, which is the Project's buildout year.

under the Project, as evidenced in its application of a 0.33 percent annual growth rate in commercial water use to calculate the City's water demand projections through 2040.⁴⁶

The Metropolitan Water District's (MWD) water supplies are facing challenges due to environmental concerns and litigation. Additionally, changes in hydrological conditions due to climate change could also have an impact on MWD's water supplies. However, along with MWD's water management and reliability initiatives, the LBWD is committed to providing a reliable water supply for the City, as detailed in its 2015 UWMP. The LBWD's 2015 UWMP takes into account the concerns of drought and dry weather and notes that the City will meet all new demand for water due to projected population growth through a combination of water conservation and water recycling.

Based on the above, the estimated water demand for the Project would not exceed the available supplies projected by the LBWD. Thus, the LBWD would be able to meet the Project's water demand in combination with the existing and planned future water demands within its service area. Therefore, the Project's operational impacts on water supply would be less than significant, and no mitigation measures are required.

(b) Water Infrastructure

Water service to the Project Site would continue to be provided by the LBWD for domestic and fire protection uses. While domestic water demand is typically the main contributor to water consumption, fire flow demands have a much greater instantaneous impact on infrastructure and therefore are the primary means for analyzing infrastructure capacity. As discussed in Section IV.J.1, Public Services—Fire Protection, of the Draft EIR, per the California Fire Code, fire flow requirements are based on building types and floor area and range from 1,500 to 8,000 gallons per minute at 20 pounds per square inch. In accordance with Section 18.48.420 of the Long Beach Fire Code, all new commercial, industrial, and non-residential buildings that require two or more exits or that are greater than 3,000 square feet shall be protected by an automatic sprinkler system. Per the Long Beach Fire Code, fire flows can be reduced by up to 50 percent when fire sprinklers are installed. Prior to the issuance of building permits, the LBFD would be required to grant approval of the final building design, including all fire prevention and suppression systems, which would ensure the Project is developed pursuant to Fire Code requirements. In addition, on-site water connections would be constructed, as necessary, to comply with the fire flow set for the Project by the LBFD during the plan check process.

⁴⁶ As stated in the LVWD 2015 UWMP, the projections for future commercial water demands use 2014 commercial water use as a baseline and apply a 0.33-percent annual growth rate, which is the growth rate for employment between 2020 and 2035 projected by SCAG. Source: Long Beach Water Department, 2015 Urban Water Management Plan, page 26, 2016.

With implementation of on-site water system improvements, which include a loop fire distribution system and new metered domestic water distribution system, the Project would not exceed the available capacity within the distribution infrastructure that would serve the Project Site. Therefore, impacts with regard to water infrastructure would be less than significant.

b. Cumulative Impacts

The Project, in conjunction with growth forecasted in the City through 2019 (i.e., the Project buildout year), would cumulatively increase the demand for water, thus potentially resulting in cumulative impacts on water supplies and water infrastructure. Cumulative growth in the greater Project area through 2019 includes specific known development projects as well as general ambient growth projected to occur, as described in Section III, Environmental Setting, of the Draft EIR.

(1) Water Supply

The geographic context for the cumulative impact analysis on water supply is the LBWD service area (i.e., the City). As previously discussed, the LBWD, as a public water service provider, is required to prepare and update every five years a UWMP to plan and provide for water supplies to serve existing and projected demands over a 20-year horizon. The 2015 UWMP prepared by the LBWD accounts for existing development within the City, as well as projected growth through the year 2040. The growth assumed in the UWMP water demand projections incorporate population, housing, and employment growth anticipated in the City based on both historical trends and official forecasts from SCAG and the California Department of Finance.⁴⁷

Section III, Environmental Setting, of the Draft EIR identifies six related projects located in the Project vicinity. Four of the six related projects are located in the City of Long Beach and would be served by the LBWD. However, as the City is considered essentially built out, the related projects represent rather limited floor area, with several of the land uses (e.g., a wetlands mitigation bank, an energy storage facility) generating little water demand. The LBWD's 2015 UWMP acknowledges that growth in the City is expected to continue to be lower than that of other cities in Southern California and the region as a whole. In addition, the LBWD has determined it will be able to reliably provide water to its customers from 2015 through the year 2040, as well as during intervening years (i.e., 2019, the Project build out year).

⁴⁷ Long Beach Water Department, 2015 Urban Water Management Plan, pages 21-22 and 26, 2016.

Additionally, under the provisions of SB 610, the LBWD is required to prepare a comprehensive water supply assessment for every new development “project” (as defined by Section 10912 of the Water Code) within its service area that meets certain thresholds. As described in the Regulatory Framework subsection above, the types of projects that are subject to the requirements of SB 610 tend to be larger projects that may or may not have been included within the growth projections of the LBWD 2015 UWMP. The water supply assessment for such projects would evaluate the quality and reliability of existing and projected water supplies, as well as alternative sources of water supply and measures to secure alternative sources if needed.

Compliance with regulatory requirements that promote water conservation, such as the LBWD Water Conservation and Water Supply Shortage Plan and the Sustainable City Plan, as well as implementation of water saving strategies, also will assist in assuring that adequate water supply is available on a cumulative basis.

Based on the above, it is anticipated that the LBWD would be able to supply the demands of the Project and future growth through 2019 and beyond. Therefore, Project impacts on water supply would not be cumulatively considerable.

(2) Water Infrastructure

The geographic context for the cumulative impact analysis on water infrastructure is the Project vicinity. Development of the Project and future new development in the Project vicinity would cumulatively increase demands on the existing water conveyance system. However, new development projects would be subject to City review to assure that the existing public utility facilities would be adequate to meet the domestic and fire water demands of each project, and individual projects would be subject to City requirements regarding infrastructure improvements needed to meet respective water demands, fire flow and pressure requirements, etc. Furthermore, the LBWD, Long Beach Department of Public Works, and the LBFD would conduct ongoing evaluations to ensure facilities are adequate. Therefore, Project impacts on the water infrastructure system would not be cumulatively considerable.

c. Project Design Features

As described in Section II, Project Description, of the Draft EIR, the Project would incorporate green principles to comply with the City of Long Beach Green Building Ordinance (Ordinance No. ORD-09-0013) and the sustainability intent of the U.S. Green Building Council’s LEED® program at the Certified level (or equivalent), including water conservation features such as use of drought-tolerant landscaping and use of water-efficient plumbing fixtures. In particular, the following is proposed as part of the Project:

- Install water conserving fixtures that reduce water use by at least 20 percent.
- Install weather-based irrigation controllers.

d. Mitigation Measures

Project-level and cumulative impacts with regard to water supply and water infrastructure would be less than significant. Therefore, no mitigation measures are required.

e. Level of Significance After Mitigation

Project-level and cumulative impacts related to water supply and infrastructure would be less than significant.

L.2. Utilities and Service Systems—Energy

a. Analysis of Project Impacts

(1) Construction Impacts

Project construction is anticipated to occur over approximately 16 months, with completion anticipated in 2019. During Project construction, energy would be consumed in the form of electricity and petroleum-based fuels. As shown in Table IV.L.2-1 in Section IV.L.2, Utilities and Service Systems—Energy, of the Draft EIR, approximately 45,973 kWh of electricity; 33,991 gallons of gasoline; and 92,504 gallons of diesel are estimated to be consumed during Project construction, as discussed further below.

(a) Electricity

As shown in Table IV.L.2-1 in Section IV.L.2, Utilities and Service Systems—Energy, of the Draft EIR, a total of approximately 45,973 kWh of electricity is anticipated to be consumed during Project construction. The electricity demand at any given time would vary throughout the construction period based on the construction activities being performed and would cease upon completion of construction. When not in use, electric equipment would be powered off so as to avoid unnecessary energy consumption. Therefore, the use of electricity during Project construction would not be wasteful, inefficient, or unnecessary.

Construction of the Project's electrical infrastructure would primarily occur within the Project Site although some off-site construction activities to connect the Project's electrical

infrastructure with primary electrical distribution lines could occur. The Project Applicant would be required to coordinate electrical infrastructure removals or relocations with SCE and comply with site-specific requirements set forth by SCE, which would ensure that service disruptions and potential impacts associated with grading, construction, and development within SCE easements are minimized. As such, construction of the Project's electrical infrastructure is not anticipated to adversely affect the electrical infrastructure serving the surrounding uses or utility system capacity.

The estimated construction electricity usage represents approximately 2.24 percent of the Project's estimated net operational demand, which, as discussed below, would be within the supply and infrastructure service capabilities of SCE. Therefore, construction of the Project would not result in an increase in demand for electricity that exceeds available supply or distribution infrastructure capabilities that could result in the need for new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. Therefore, based on the above, construction-related impacts to electricity supply and infrastructure would be less than significant.

(b) Natural Gas

Construction activities typically do not involve the consumption of natural gas. Accordingly, natural gas would not be supplied to support Project construction activities, and there would be no demand generated during construction. However, the Project would involve installation of new natural gas connections to serve the Project Site. Since the Project Site is located in an area already served by existing natural gas infrastructure, it is anticipated that the Project would not require extensive off-site infrastructure improvements to serve the Project Site. Construction impacts associated with the installation of natural gas connections are expected to be confined to trenching in order to place the lines below surface. Prior to ground disturbance, Project contractors would notify and coordinate with Long Beach, Gas & Oil Department (LBGO) to identify the locations and depths of all existing gas lines and avoid disruption of gas service to other properties. Therefore, Project construction would not result in an increase in demand for natural gas that affects available supply or distribution infrastructure capabilities and would not result in the need for new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. Construction-related impacts to natural gas supply and infrastructure would be less than significant.

(c) Transportation Energy

The petroleum-based fuel use summary provided above in Table IV.L.2-1 in Section IV.L.2, Utilities and Service Systems—Energy, of the Draft EIR represents the amount of transportation energy that could potentially be consumed during Project construction based on a conservative set of assumptions. As shown, on- and off-road vehicles would consume

an estimated 33,991 gallons of gasoline and approximately 92,504 gallons of diesel fuel throughout the Project's construction period. For comparison purposes, the fuel usage during Project construction would represent approximately 0.001 percent of the 2015 annual on-road gasoline-related energy consumption and 0.01 percent of the 2015 annual diesel fuel-related energy consumption in Los Angeles County, as shown in Appendix U of the Draft EIR.

The recycling of solid waste materials also contributes to reduced energy consumption. Specifically, when products are manufactured using recycled materials, the amount of energy that would have otherwise been consumed to extract and process virgin source materials is reduced. For example, recycling one ton of aluminum cans conserves more than 207 million British thermal units (MMBtu), the equivalent of 36 barrels of oil or 1,665 gallons of gasoline.⁴⁸ As discussed in Section II, Project Description, the Project would recycle or otherwise divert from landfills a minimum of 65 percent of construction waste generated on-site. A reduction in solid waste not only reduces the number of trips to haul solid waste, thus reducing the amount of petroleum-based fuel consumed, but it also reduces the amount of energy used to process solid waste. Therefore, the Project would contribute to reduced energy consumption through construction-related recycling and waste diversion activities. Based on the above, Project construction would not result in the wasteful, inefficient, and unnecessary consumption of transportation-related energy resources.

(2) Operation Impacts

During operation of the Project, energy would be consumed for multiple purposes, including, but not limited to: HVAC; refrigeration; lighting; and the use of electronics, equipment, and machinery. Energy also would be consumed during Project operations in conjunction with water usage, solid waste disposal, and vehicle trips. As shown in Table IV.L.2-2 in Section IV.L.2, Utilities and Service Systems—Energy, of the Draft EIR, the Project's net new energy demand would be approximately 2,055 megawatt-hours (MWh) of electricity per year; 6,951,862 cubic feet (cf) of natural gas per year; 954,952 gallons of gasoline per year; and 165,309 gallons of diesel fuel per year, as discussed further below.

(a) Electricity

As shown in Table IV.L.2-2 in Section IV.L.2, Utilities and Service Systems—Energy, of the Draft EIR, with compliance with applicable CALGreen requirements, Project buildout would result in a projected net increase in the on-site demand for electricity totaling

⁴⁸ American Geosciences Institute, *How Does Recycling Save Energy?*, www.americangeosciences.org/critical-issues/faq/how-does-recycling-save-energy, accessed February 14, 2017.

approximately 2,055 MWh per year. In addition to complying with CALGreen requirements, the Project would incorporate “green” principles to comply with the City of Long Beach Green Building Ordinance (Ordinance No. ORD-09-0013) and the sustainability intent of the U.S. Green Building Council’s LEED® program at the Certified level (or equivalent). Measures implemented as part of the Project would address energy conservation, transportation, waste reduction, water conservation, and indoor air quality and durability, as previously discussed. These measures would further reduce the Project’s energy demand. In addition, SCE is required to procure at least 33 percent of their energy portfolio from renewable sources by 2020. The current sources procured by SCE include biomass and biowaste, geothermal, solar, and wind sources. These sources account for 25 percent of SCE’s power mix, according to their 2015 Power Content Label.⁴⁹ This represents the available off-site renewable sources of energy that would meet the Project’s energy demand. Furthermore, the Project would comply with Title 24 Section 110.10, which includes mandatory requirements for solar-ready buildings and, as such, would not preclude the potential use of alternate fuels. Therefore, the Project would not cause wasteful, inefficient, and unnecessary consumption of electricity during operation.

The availability of electricity depends upon adequate generation capacity and fuel supplies. The CEC analyzes energy usage throughout the State and publishes a demand forecast staff report every few years, the most recent of which covers the 2014–2024 period. The CEC estimates electricity consumption within the SCE planning area would be 109,206 GWh in 2024 (the latest available forecast year).⁵⁰ Based on the Project’s estimated electrical consumption of 2,055 MWh per year, the Project would account for approximately 0.002 percent of the 2024 demand forecasted in the SCE planning area. In addition, SCE has confirmed that the Project’s electricity demand can be served by the facilities in the Project area.⁵¹ Additionally, the Project would implement any necessary connections and upgrades required by SCE to ensure adequate service to the Project. Therefore, it is anticipated that SCE’s existing and planned electricity capacity and electricity supplies and infrastructure would be sufficient to support the Project’s electricity demand. Accordingly, operation of the Project would not result in an increase in demand for electricity that exceeds available supply or distribution infrastructure capabilities that could result in the need for new energy facilities or expansion of existing facilities, the

⁴⁹ CEC, *Utility Annual Power Content Labels for 2015*, www.energy.ca.gov/pcl/labels/, accessed February 14, 2017.

⁵⁰ The CEC’s forecast includes three scenarios: a high energy demand case, a low energy demand case, and a mid energy demand case for SCE planning area. The consumption forecast for the low energy demand case is used in this calculation to provide a conservative analysis of the Project (i.e., the Project would represent a greater percentage of overall demand under this scenario). CEC, *Commission Final Report, California Energy Demand 2014–2024 Final Forecast*, January 2014, p. A-3.

⁵¹ Refer to SCE’s Will Serve Letter included in Appendix V of the Draft EIR.

construction of which could cause significant environmental effects. Based on the above, operational impacts to electricity supply and infrastructure would be less than significant.

(b) Natural Gas

As provided in Table IV.L.2-2 in Section IV.L.2, Utilities and Service Systems—Energy, of the Draft EIR, the Project is projected to generate an increase in the on-site demand for natural gas, totaling approximately 6,951,862 cf per year. As discussed above, in addition to complying with applicable regulatory requirements regarding energy conservation (e.g., California Building Energy Efficiency Standards and CALGreen), the Project would implement a variety of sustainability features, many of which would either directly or indirectly conserve energy. Therefore, the Project would not cause wasteful, inefficient, and unnecessary consumption of natural gas during operation.

As stated above, the Project's estimated net increase in demand for natural gas is 6,951,862 cf per year, or approximately 19,046 cf per day. Based on the 2016 California Gas Report, the California Energy and Electric Utilities estimates natural gas consumption within LBGO's planning area will be approximately 23.7 million cf per day in 2019 (i.e., the Project buildout year).⁵² The Project would account for approximately 0.008 percent of the 2019 forecasted consumption in LBGO's planning area. In addition, LBGO has confirmed that the Project's natural gas demand can be served by the facilities in the Project area.⁵³ Furthermore, the Project would implement any necessary connections and upgrades required by LBGO to ensure adequate service to the Project. Therefore, it is anticipated that LBGO's existing and planned natural gas supplies and infrastructure would be sufficient to support the Project's net increase in demand for natural gas.

Based on the above, operation of the Project would not result in an increase in demand for natural gas that exceeds available supply or distribution infrastructure capabilities that could result in the need for new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. Operational impacts to natural gas supply and infrastructure would be less than significant.

(c) Transportation Energy

During operation, Project-related traffic would result in the consumption of petroleum-based fuels related to vehicular travel to and from the Project Site. As previously discussed, public transit in the Project area is provided by Metro, Orange County

⁵² *California Gas and Electric Utilities, 2016 California Gas Report, p. 105.*

⁵³ *Refer to LBGO's Will Serve Letter included in Appendix V of the Draft EIR.*

Transportation Authority, and Long Beach Transit. Long Beach Transit operates 10 bus lines in the study area and also provides free Passport shuttle service connecting visitors to and around Downtown Long Beach. The Orange County Transportation Authority provides three bus lines in the study area. The Metro Blue Line 1st Street Station is located approximately 5 miles east of the Project Site. In addition, the Project would include bicycle racks Project employees and guests. Furthermore, the Project reflects characteristics that reduce vehicle trips and VMT as compared to standard ITE trip generation rates. More specifically, the Project characteristics listed below are consistent with the CAPCOA guidance document, *Quantifying Greenhouse Gas Mitigation Measures*,⁵⁴ which provides emission reduction values for recommended mitigation measures and serves to reduce vehicle trips and VMT. Measures applicable to the Project include the following:

Increase Diversity of Urban and Suburban Developments (Mixed-Uses)

(LUT-3): The Project would introduce new uses on the Project Site, including new commercial/retail/restaurant uses. The Project would co-locate complementary commercial/retail/restaurant uses in proximity to other existing off-site residential and commercial uses. The increases in land use diversity and the specific mix of uses on the Project Site would reduce vehicle trips and VMT by encouraging walking and non-automotive forms of transportation (i.e., walking and biking), which would result in corresponding reductions in transportation-related emissions. (Note: This measure results in a 15.5-percent reduction in VMT.)

Increase Destination Accessibility (LUT-4): The Project Site is located within 5 miles of Downtown Long Beach and the Port of Long Beach, both of which are primary job centers and are easily accessible by public transportation. Access to multiple destinations in proximity to the Project Site would reduce vehicle trips and VMT compared to the statewide average; encourage walking and non-automotive forms of transportation; and would result in corresponding reductions in transportation-related emissions as a result of the Project. (Note: This measure results in a 9.3-percent reduction in VMT.)

Provide Pedestrian Network Improvements (SDT-1): Project design would provide pedestrian access that minimizes barriers and links the Project Site with the existing street network to encourage people to walk instead of drive. The Project would provide direct access to the existing off-site pedestrian network to encourage and increase pedestrian activities in the area, which would further reduce VMT and

⁵⁴ California Air Pollution Control Officers Association, *Quantifying Greenhouse Gas Mitigation Measures*, 2010, pp. 162–189.

associated transportation-related emissions. (Note: This measure results in a 0.6-percent reduction in VMT.)

As such, the Project's siting characteristics would minimize transportation fuel consumption through the reduction of VMT, as described above.

As summarized in Table IV.L.2-2 in Section IV.L.2, Utilities and Service Systems—Energy, of the Draft EIR, when accounting for the features implemented to reduce VMT, the Project's estimated net petroleum-based fuel usage would be approximately 954,952 gallons of gasoline and 165,309 gallons of diesel per year, or a total of 1,120,261 gallons of petroleum-based fuels annually. Based on the above characteristics, the Project would not cause wasteful, inefficient, and unnecessary consumption of petroleum-based fuel during operation. Impacts associated with operational transportation-related energy use would be less than significant.

(3) Regulatory Consistency

The Project would comply with applicable regulatory requirements for the design of new buildings, including the provisions set forth in the CALGreen Code and California's Building Energy Efficiency Standards, as well as the City of Long Beach Green Building Ordinance. As previously discussed, the Project's "green" principles would comply with the sustainability intent of the U.S. Green Building Council's LEED® program at the Certified level (or equivalent), and measures implemented as part of the Project would address energy conservation, transportation, waste reduction, water conservation, and indoor air quality and durability.

The Project also would be consistent with regional planning strategies that address energy conservation. As discussed above and in Section IV.H, Land Use, of the Draft EIR, SCAG's 2016–2040 RTP/SCS focuses on creating livable communities with an emphasis on sustainability and integrated planning and identifies mobility, economy, and sustainability as the three principles most critical to the future of the region. As part of the approach, the 2016–2040 RTP/SCS emphasizes reducing fossil fuel use by decreasing VMT, reducing building energy use, and increasing the use of renewable sources. The Project would be consistent with the energy efficiency policies emphasized in the 2016–2040 RTP/SCS. Most notably, the Project is a mixed-use, infill development project within an area designated as LUD No. 7, Mixed Use District, by the City's General Plan. As set forth in the General Plan, uses intended for LUD No. 7 include employment centers, such as retail uses, offices, and medical facilities; higher density residences; visitor-serving facilities; personal and professional services; and recreational facilities. The Project would provide greater proximity to neighborhood services and jobs and would be well-served by existing public transportation, including Metro, Orange County Transportation Authority,

and Long Beach Transit bus lines. This is evidenced by the Project Site's location within a designated HQTAs. The introduction of new job opportunities within a HQTAs, as proposed under the Project, is consistent with numerous policies in the 2016–2040 RTP/SCS related to locating new jobs near transit. In addition, the Project would comply with state energy efficiency requirements and would use electricity from SCE, which has a current renewable energy mix of 20 percent. All of these features would serve to reduce the consumption of electricity, natural gas, and transportation fuel associated with VMT.

Based on the above, the Project would not conflict with adopted energy conservation plans, or violate state or federal energy standards. Impacts associated with regulatory consistency would be less than significant.

(4) Conclusion

As demonstrated in the analysis above, the Project would not cause wasteful, inefficient, or unnecessary consumption of energy during construction or operation; result in an increase in demand for electricity or natural gas that exceeds available supply or distribution infrastructure capabilities that could result in the need for new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; conflict with adopted energy conservation plans; or violate state or federal energy standards. Therefore, Project impacts related to energy use would be less than significant during both construction and operation.

b. Cumulative Impacts

The geographic context for the cumulative impact analysis of electricity is the SCE service area, and the geographic context for the cumulative impact analysis of natural gas is the LBGO service area. While the geographic context for transportation-related energy use is more difficult to define, it is meaningful to consider the Project in the context of County-wide consumption. The Project, in conjunction with forecasted growth through 2019 (i.e., the Project buildout year) in these geographies, would cumulatively increase the consumption of energy, thus potentially resulting in cumulative impacts with respect to energy use. Cumulative growth in the greater Project area through 2019 includes specific known development projects, as well as general ambient growth projected to occur, as described in Section III, Environmental Setting, of the Draft EIR. These related projects include a limited amount of recreational, office, commercial/retail, restaurant, storage/warehouse, and infrastructure uses, including an energy storage system facility and new oil wells within an existing oil field.

(1) Electricity

Buildout of the Project, related projects, and additional forecasted growth in SCE's service area would cumulatively increase the demand for electricity supplies and infrastructure capacity. The CEC estimates electricity consumption within the SCE planning area would be 109,206 GWh in 2024 (the latest available forecast year). Based on the Project's estimated electrical consumption of 2,055 MWh per year, the Project would account for approximately 0.002 percent of the 2024 demand forecasted in the SCE planning area. Thus, although Project development would result in the use of renewable and non-renewable electricity resources during construction and operation, which could limit future availability, the use of such resources would be on a relatively small scale and would be consistent with growth expectations for SCE's service area. Accordingly, the Project's contribution to cumulative impacts related to electricity consumption would not be cumulatively considerable and, thus, would be less than significant. Furthermore, as with the Project, during construction and operation, future development projects would be expected to incorporate energy conservation features, comply with applicable regulations including the CALGreen code and state energy standards under Title 24, and incorporate mitigation measures, as necessary.

Electricity infrastructure is typically expanded in response to increasing demand, and system expansion and improvements by SCE are on-going. It is expected that SCE would continue to expand delivery capacity as needed to meet demand increases within its planning area. Development projects within its service area also would be anticipated to incorporate site-specific infrastructure improvements, as necessary. As such, cumulative impacts with respect to electricity infrastructure would be less than significant.

(2) Natural Gas

Buildout of the Project, related projects, and additional forecasted growth in LBGO's service area would cumulatively increase the demand for natural gas supplies and infrastructure capacity. Based on the 2016 California Gas Report, the California Energy and Electric Utilities estimates natural gas consumption within LBGO's planning area will be approximately 23.7 million cf per day in 2019 (i.e., the Project buildout year). The Project would account for approximately 0.008 percent of the 2019 forecasted consumption in LBGO's planning area. LBGO's forecasts take into account projected population growth and development based on local and regional plans. Although Project development would result in the use of natural gas resources, which could limit future availability, the use of such resources would be on a relatively small scale and would be consistent with regional and local growth expectations for LBGO's service area. Furthermore, future development projects would be expected to incorporate energy conservation features, comply with applicable regulations including the CALGreen code and state energy standards under Title 24, and incorporate mitigation measures, as necessary. Accordingly, the Project's

contribution to cumulative impacts related to natural gas consumption would not be cumulatively considerable and, thus, would be less than significant.

Natural gas infrastructure is typically expanded in response to increasing demand and system expansion and improvements by LBGO occur as needed. It is expected that LBGO would continue to expand delivery capacity if necessary to meet demand increases within its service area. Development projects within its service area also would be anticipated to incorporate site-specific infrastructure improvements, as appropriate. As such, the Project's contribution to cumulative impacts with respect to natural gas infrastructure would not be cumulatively considerable and, thus, would be less than significant.

(3) Transportation Energy

Buildout of the Project, related projects, and additional forecasted growth would cumulatively increase the demand for transportation-related fuel in the State and region. As described above, at buildout, the Project would consume a net total of 954,952 gallons of gasoline and 165,309 gallons of diesel per year, or a total of 1,120,261 gallons of petroleum-based fuels annually. For comparison purposes, the transportation-related fuel usage for the Project would represent approximately 0.006 percent of the 2015 annual on road gasoline- and diesel-related energy consumption in Los Angeles County. Additionally, as described above, petroleum currently accounts for 90 percent of California's transportation energy sources; however, over the last decade the State has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHGs from the transportation sector and reduce VMT, which would reduce reliance on petroleum fuels. According to the CEC demand forecasts, gasoline consumption will decline by up to 3.7 percent for the next 10 years due to improved fuel economy and the use of alternative fuels, such as natural gas, biofuels, and electricity. As with the Project, other future development projects would be expected to reduce VMT by encouraging the use of alternative modes of transportation and other design features that promote VMT reductions.

Furthermore, the Project would be consistent with the energy efficiency policies emphasized by the 2016–2040 RTP/SCS. Specifically, the Project is a mixed-use, infill development project within an area designated as LUD No. 7, Mixed Use District. The Project would provide greater proximity to neighborhood services and jobs and would be well-served by existing public transportation, including Metro, Orange County Transportation Authority, and Long Beach Transit bus lines. This is evidenced by the Project Site's location within a designated HQTAs. The introduction of new job opportunities within a HQTAs, as proposed by the Project, is consistent with numerous policies in the

2016–2040 RTP/SCS related to locating new jobs near transit. These features would serve to reduce VMT and associated transportation fuel consumption. Furthermore, the 2016–2040 RTP/SCS would result in an estimated 8-percent decrease in per capita GHG emissions by 2020, an 18-percent decrease in per capita GHG emissions by 2035, and a 21-percent decrease in per capita GHG emissions by 2040. As shown in Section IV.E, Greenhouse Gas Emissions, the Project results in a VMT reduction of approximately 28 percent in comparison to the NIERM scenario and a 25-percent reduction in GHG emissions from mobile sources. The Project also would be consistent with the per capita reduction in transportation emissions provided in the 2016–2040 RTP/SCS. By its very nature, the 2016–2040 RTP/SCS is a regional planning tool that addresses cumulative growth and resulting environmental effects. Since the Project is consistent with the 2016–2040 RTP/SCS, its contribution to cumulative transportation energy use would not be cumulatively considerable and, therefore, would be less than significant.

(4) Conclusion

Based on the analysis provided above, the Project’s contribution to cumulative impacts related to energy consumption (i.e., electricity, natural gas, and fuel) would not result in a cumulatively considerable effect related to the wasteful, inefficient, and unnecessary consumption of energy during construction, operation, and/or maintenance; an increase in demand for electricity or natural gas that exceeds available supply or distribution infrastructure capabilities that could result in the need for new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; a conflict with adopted energy conservation plans; or a violation of state or federal energy standards. As such, the Project’s impacts would not be cumulatively considerable; therefore, cumulative energy impacts are concluded to be less than significant.

c. Project Design Features

As discussed in Section II, Project Description, of the Draft EIR, the Project incorporates features to support and promote environmental sustainability. “Green” principles have been incorporated in the Project to comply with the City of Long Beach Green Building Ordinance (Ordinance No. ORD-09-0013) and the sustainability intent of the U.S. Green Building Council’s Leadership in Energy and Environmental Design (LEED®) program. These include energy conservation, transportation, waste reduction, and other related measures, as detailed below.

Energy Measures

- Shield exterior fixtures to limit light pollution and glare.

- Commission all building envelope and energy consuming systems to ensure efficient operations and reduce both operational and maintenance costs.
- Meet or exceed Title 24, Part 6, California Energy Code baseline standard requirements for energy efficiency, based on the 2016 Energy Efficiency Standards requirements.

Transportation Measures

- Provide bike parking on-site to reduce vehicle trips.
- Provide preferred parking for clean air, van pools, and fuel efficiency vehicles to encourage clean air vehicle use.
- Provide pre-wiring for electric vehicles in parking spaces on-site as required by the Green Building Standards Code (LBMC Chapter 18.47). (Refer to Project Design Features E-2 and E-3 for details.)

Construction Materials

- Recycle or otherwise divert from landfills a minimum of 65 percent of construction waste generated on-site.
- Utilize finishing materials such as paints, primers, sealants, and other materials that emit low quantities of volatile organic compounds (VOCs) and/or other air quality pollutants.
- Utilize panelized wood products that have low levels of formaldehyde.
- Utilize carpet and hard flooring that has low VOC content and/or is composed of recycled products.

Indoor Air Quality and Durability

- Weather protect all exterior entrances to improve the long-term durability of buildings.
- Require third-party testing to ensure that energy systems are installed and functioning as intended.
- Ensure tight ductwork in air conditioning systems to improve comfort and reduce energy costs.
- Utilize bathroom fan systems that either operate continuously or have humidistats to automatically remove moisture and minimize mold growth.

Water Measures

- Install water conserving fixtures that reduce water use by at least 20 percent.
- Install weather-based irrigation controllers.

Additional discussion of the Project's sustainability features is provided in Section IV.E, Greenhouse Gas Emissions, of the Draft EIR.

d. Mitigation Measures

Project-level and cumulative impacts with regard to energy use would be less than significant. Therefore, no mitigation measures are required.

e. Level of Significance After Mitigation

Implementation of the project design features discussed above would reduce impacts related to energy use to a less than significant level.

8. Effects Found Not to Be Significant

The City determined through the Initial Study (Appendix A of the Draft EIR) that the Project would not have the potential to cause significant impacts related to agricultural and forest resources, biological resources, mineral resources, population and housing, certain public services (schools, parks, and libraries), recreation, and certain utilities and service systems (wastewater and solid waste). Therefore, these areas were not analyzed further in the Draft EIR.

However, a number of public comments on the Draft EIR pertaining to biological resources were received and are addressed in this Final EIR. In response to those comments, a memorandum entitled *Biological Resources Document Review—Draft EIR for 2nd & PCH Project* (Bio Memo) has been prepared by biologists at Dudek and is provided in Appendix FEIR-C of this Final EIR. This memorandum provides a summary of the various biological resource evaluations prepared over the past several years for the current Project as well as past development proposals on the Project Site and demonstrates that all have come to the same conclusion: impacts would be less than significant with mitigation, as concluded in the Initial Study. The following mitigation measure was set forth in the Initial Study and is included in the MMRP:

Mitigation Measure IS-1: The Applicant shall perform one or more of the following to reduce potential impacts to migratory raptor and songbird species

to a less than significant level: (1) vegetation removal activities shall be scheduled outside the nesting season for raptor and songbird species (nesting season typically occurs from February 15 to August 31) to avoid potential impacts to nesting species (this will ensure that no active nests will be disturbed and that habitat removal could proceed rapidly); and/or (2) any construction activities that occur during the raptor and songbird nesting season shall require all suitable habitat to be thoroughly surveyed for the presence of nesting raptor and songbird species by a qualified biologist no earlier than seven days prior to commencement of disturbance. If any active nests are detected, a buffer of at least 300 feet (500 feet for raptors) or as determined by the qualified biologist shall be delineated, flagged, and avoided until the nesting cycle is complete, as determined by the qualified biologist. The results of the survey(s) shall be reported to the lead agency to document compliance with applicable state and federal laws pertaining to the protection of nesting native birds.

Additionally, as a precaution and in recognition of the sensitivity of the nearby Los Cerritos Wetlands, the temporary sound barrier proposed along the northwestern Project Site property line during demolition (i.e., the loudest construction phase) would be extended to border the northeastern corner of the Project Site, thus shielding land uses to the northeast, including the nearest portion of the Los Cerritos Wetlands, from construction-related noise. As detailed in revised Mitigation Measure I-1 above, this sound barrier would be designed to provide a 5-decibel reduction in demolition noise emanating from the Project Site. The impact conclusion of the Initial Study remains unchanged, and all impacts to biological resources would be less than significant with mitigation.